The Fauna and Flora of Horn Island, Mississippi

E. Avery Richmond

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DOI: https://doi.org/10.18785/grr.0102.01

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A JOURNAL DEVOTED PRIMARILY TO
PUBLICATION OF THE DATA OF THE
MARINE SCIENCES, CHIEFLY OF THE
GULF OF MEXICO AND ADJACENT
WATERS.

GORDON GUNTER, Editor

Published by
GULF COAST RESEARCH LABORATORY
Ocean Springs, Mississippi

SHAUGHNESSY PRINTING CO., BILOXI, MISSISSIPPI
The Fauna and Flora
of
Horn Island, Mississippi

by

E. Avery Richmond
Present Address: 14 Circle Drive, Moorestown, New Jersey

GULF COAST RESEARCH LABORATORY
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I. INTRODUCTION

From 26 February 1944 until 4 February 1945, I was stationed with the U. S. Army on Horn Island, Mississippi, and decided to observe and record the animals and plants existing there. At the time, it seemed that little attention had been devoted to the wildlife of this island, but eventually it became apparent that some studies had been made. However, many of the observations have not been published and many of the records of the flora and fauna living on and around the island are scattered and unavailable. The most outstanding papers include those of Lloyd and Tracy (1901), Lowe (1921), and Pessin and Burleigh (1941). Cook (1942, 1943 a and b) described several of the animals observed. Smith and List (1955) recorded a number of amphibians and reptiles which were collected on Horn Island.

Since 1945 more attention has been paid to this subject. Kopman (1946) enlightened the public regarding the seasonal activity of the animals and changing conditions in the Mississippi Sound region in his delightful "Wild Acres," a book of the Gulf Coast country. From 1940 on many scientists and students of the Gulf Coast Research Laboratory visited Horn Island, but still comparatively little has been published. Rings and Richmond (1953) presented a brief survey on the mosquitoes collected by them during 1944 and 1945; the species listed by them, together with two additional ones, are included in this paper.

The animals and plants actually collected or observed on Horn Island are listed in Part IV. Besides those collected by myself, species reported by other investigators are included. Longer study and more intensive collecting would doubtless result in many additions to the fauna and flora as known at present.

This study was not sponsored by any organization, and the expense and time devoted to it were contributed chiefly by myself. However, I was in the service of the U. S. Army during the first year of the study, and subsequently Dr. Gordon Gunter, director of the Gulf Coast Research Laboratory at Ocean Springs, Mississippi, granted me the privilege of living and working there, as an honorary member of the staff. Doctor Gunter also reviewed this contribution and gave me some helpful suggestions. Finally, many facilities at the U. S. National Museum and at the Academy of Natural Sciences at Philadelphia were placed at my disposal. Records of many of the more primitive invertebrates were taken from a manuscript check-list of the marine fauna of Mississippi Sound which has been maintained at the Gulf Coast Research Laboratory since 1950. Such specimens are in a reference collection at the Laboratory. The species on this list reported from Horn Island or vicinity were kindly checked for me by Dr. H. J. Bennett. Mrs. Clara LeGear of the Library of Congress was helpful in locating important maps.

I am greatly indebted to the specialists named below for assistance in the identification of species in the following groups: Mollusca (R. Tucker Abbott and Donald R. Moore); Pisces (Henry W. Fowler and J. Y. Christmas); Aves (T. D. Burleigh and John R. Walther); and Arthropoda (W. H. Anderson, R. H. Arnett, P. D. Ashlock, H. S. Barber, R. E. Blackwelder, L. L. Buchanan, W. D. Burks, J. S. Caldwell, H. W. Capps, O. L. Cartwright, E. A. Chapin, J. F. G. Clark, R.

The insects sent to the National Museum were deposited in its collection or, if not of major interest, returned to me. Most of the specimens that were returned were given to the University of Massachusetts or to Cornell University. The Tipulidae were identified by Charles P. Alexander, and the specimens are in his private collection at Cranefly Haven, Amherst, Massachusetts. A number of Coleoptera were sent to Henry Dietrich and were deposited in the Cornell University insect collection. The Hydrophilidae, Dytiscidae, Haliplidae, and Gyrinidae were determined by Paul J. Spangler of the U. S. National Museum or myself and given to the National Museum. The arrangement of the Lepidoptera is in keeping with the opinion of Mr. Bryant Mather of Jackson, Mississippi. The mollusks and three fish, identified by Abbott and Fowler, respectively, were deposited at the Academy of Natural Sciences of Philadelphia. Fred Aldrich, formerly assistant curator of Limnology at the Academy of Natural Sciences of Philadelphia, was helpful in the naming of the species in his particular field.

The plants were identified by Philip A. Munz of Claremont, California, R. B. Channel1 of Vanderbilt University, Nashville, Tennessee and myself. Most of the plants were placed in the Bailey Hortorium where Doctor Munz was the assistant curator at the time material was sent to him for identification. My appreciation is extended to C. E. Woods, Jr., of the Gray Herbarium at Harvard University, for his courtesy in allowing the use of his tentative classification of plants, and to G. W. Johnston, professor of botany, and Sidney McDaniels, of State College, Mississippi, for permission to examine the Lowe Collection.

II. DESCRIPTION OF THE ISLAND

Lloyd and Tracy (1901), Pessin and Burleigh (1941, 1944), Rings and Richmond (1953), and Moore (1961) contributed information regarding the location, size, soil types, climate, ecology, fauna, and flora of the insular group whose components are Dauphin, Petit Bois, Horn, Ship, and Cat Island. They separate the Mississippi Sound from the Gulf of Mexico. The Sound is about eighty miles long by ten miles wide. Three rivers, (the Pearl to the west, the Pascagoula and the Alabama to the east) supply fresh water to the Sound, thus diluting the salt water which flows in between the barrier islands from the Gulf. So, as Priddy et al. (1965) state, “the Sound is a gigantic mixing bowl for animal and plant life.” It has been assumed by geologists that these islands were formerly a part of the mainland, and that the present water areas were formed by a sinking of the land (McGee 1891). However, others believe that the islands were built up some five or six thousand years ago after the sea level became stabilized at or near its present height (Moore 1961).
This paper primarily concerns only Horn Island, although the barrier islands have a great deal in common and possess many structural characteristics and wildlife species which are fundamentally the same. Lloyd and Tracy did not deal specifically with Horn Island, but many of their remarks are worth noting. Figures 1 through 3 show the relation of these islands to the mainland and to each other, a detailed drawing of Horn Island itself, and the area assigned as a refuge of the Fish and Wildlife Service.

Horn Island is approximately thirteen miles in length and varies from one-fourth to three-fourths of a mile in width. Both ends gradually taper to sandy points. These points are practically devoid of plants. Figures 4-9, inclusive, show characteristic areas of the island's shoreline. The terrain in general is low and sandy except for the longitudinal central portion, which is slightly higher in elevation and covered irregularly by small groves of slash pine (*Pinus Elliottii* Engelm). Figure 10 is a photograph of a young slash pine. Some of these pines are at least 200 years old. Other elevated areas are evidently due to the formation of sand dunes, which in some areas reach an altitude of 30 to 40 feet, and even cover the live oaks and pines nearly to their tops (figs. 21 and 22). Several large lagoons, ponds, and swamps (figs. 2, 12, 14, 16, 17, 18, 19 and 25) are present; the former two types of water areas are usually surrounded by marshes. Narrow-leaved cattails occur in several of the swamp-lands. (figs. 2, 13, and 20).

The climate is mild with a mean temperature of 52.9° F. in winter, and 80.7° in summer (Pessin and Burleigh 1941). However, in the fall and winter, it can be very chilly, especially when a strong westerly or northwesterly breeze is blowing, and the summer months can be very hot in the absence of winds.

The annual rainfall varies from approximately 50 to 70 inches with a mean of 58 inches (Pessin and Burleigh 1941). One heavy rainstorm in the summer of 1944 brought an exceptional downfall of 13.5 inches from midnight to 11:30 A. M. Figures 23 and 24 show an area before and after a heavy rain. The prevailing winds are southerly with occasional periods of northerly winds. August and September are the months when hurricanes are wont to arrive in the Gulf from the Caribbean Sea.

According to observations conducted by Humm and Caylor (1957) in their study of summer marine flora, the temperature in the Sound varies from 26° to 32° C. between June 1 and September 1. It is naturally higher in shallow water and slightly lower along the bottom. They state that there is considerable stratification even in shallow water and that it is therefore difficult to present precise temperature data. The salinity in the Sound was 20 to 32°/00, differing from that in the Gulf, which has a salinity of 34.88 to 36.19°/00 (Leiper 1954). Moore (1961) gave salinities taken monthly from December 1956 to June 1957 at three stations across the Sound from the Bay of Biloxi to Dog Keys Pass. The mean salinity during this period, including both surface and bottom, was 22.2 per mille. The mean water temperature at the same stations was 19.7° C. The mean range of the tide in the Sound is 1.9 feet.

Pessin and Burleigh (1941) consider four soil types to be characteristic of the island: dune sand, tidal marsh, beach sand, and “pine
timber." Along the south (Gulf) and north (Sound) coasts, dune and beach sands form the principal soils. Lloyd and Tracy (1901) call Horn Island a sand island as contrasted with a muck marsh or mud lump island. The origin of the underlying soil is probably due to the same causes as that of a muck marsh, but it is now covered for the most part by sand. Such muck or clay originated from the Mississippi and Pearl Rivers and doubtless also from the Pascagoula and Alabama Rivers. The bottoms of the lagoons are mucky. In the interior of the Island there are many depressions, some of which are inhabited by dune plants and others by marsh vegetation. In both of these areas, fine sand is present. This type of soil consists of fine, dark gray sand covering white moist sand, which is only a few centimeters deep. In some places the elevation is so low that the soil is constantly wet and forms sand marshes, while in other places the surfaces are raised from one to three meters or more.

All of the offshore islands are moving to the northwest in the direction of the prevailing winds. During the equinoctial storms of 1960, Horn Island was shortened by about one-half of a mile on the east, whereas the west end increased about one-quarter of a mile. The acreage of the Island was estimated to be approximately 3700 acres in 1956. This is a loss of about 300 acres since 1944.

The greatest variety of flora is found on the larger islands, such as Horn, since they have the greatest variety of soil and variation in the elevation. Penfound and O'Neill (1934), in their treatment of the vegetation of Cat Island, contribute much information concerning the physiography of the islands. Priddy et al. (1955) discuss the sediments of the Sound and shore waters.

III. HISTORICAL DATA

A "Historical Sketch of the Explorations in the Gulf of Mexico" was prepared by Paul S. Galtsoff (1954). His paper covers the explorations of Europeans (principally Spanish, French, Portuguese and English). Eleven maps are reproduced, beginning with a portion of a world map by Johannes Ruysch from Ptolemy's geography of 1507-1508. D'Anville's Map of Louisiana, drawn in 1732, is not published in Galtsoff's paper; however, fig. 1-B of this paper presents a portion of it. A 1731 French chart of the Islands of America and adjacent countries is included in Cumming's "Southeast in Early Maps" (1958). The barrier islands are not depicted. Cumming also shows an anonymous map of the northern Gulf coast including Florida to Mississippi and westward. This was copied from a 1544 manuscript by DeSoto, and indicates the territory over which he travelled from Florida to the Mississippi River.

Presumably the first map, summarizing the discoveries in the "western ocean" and showing the Gulf of Mexico, was drawn about 1500 by Juan de la Cosa, the companion and pilot of Christopher Columbus. Cabeza de Vaca, a companion of Panfilo de Narváez, found refuge on a small island, after Narváez had perished in a 1528 storm. This island, 5 leagues long and 2 leagues wide, he names Isla de Malhada. According to Galtsoff (1954), this may have been Horn Island.

Amerigo Vespucci in 1497 is usually credited with being the first European explorer to sail along the coast of America including the
Gulf, but this story has been questioned. Bremer in 1940 advanced the theory that Gasper Corte Vial should have the credit, since he spread the news of the existence of a new continent on his return to Portugal just prior to 1500. He cited an area on the northern coast of the Gulf as a landing place of some Portuguese sailors.

Considerable search has revealed comparatively little information concerning the part man played in the early history of Horn Island. This is not the case with several of the neighboring islands, such as Dauphin, Ship, and Cat Islands. A temple with a perpetual flame was common to many Indian tribes of the lower Mississippi River and Rayford (1956) reports that Indians had such a temple on Dauphin. In later years pirates evidently frequented this area as well as the entire Sound or Lake as it was then called. Little mention is made of Petit Bois, called Petty Boy by the residents, except as to its topography. The only remarks by Rayford concerning Horn refer to a time when the Battleship Mississippi stood off Pascagoula in “1906,” not in the Sound but in the Gulf, and a few words relative to the 1906 hurricane. The Mississippi drew 22 feet and since Horn Island Pass was only 20 feet deep, the battleship could not enter the Sound. Lee Bosarge, a well-known fisherman, was at Horn Island when the first evidences of the 1906 hurricane became visible, and as it was approaching rapidly, Bosarge decided to make for Pascagoula. However, he thought of Nelson, the lighthouse keeper, and went to the Horn Island Light, located in the Gulf near the east end of the island. Unable to persuade Nelson to leave the Light, he hurriedly set out for the mainland and barely made it before the storm. Nelson, his wife, and daughter were lost and the entire lighthouse was blown away. The Light was replaced later at a spot east of Horn and north of Petit Bois.

The earliest information concerning the presence of humans on the islands, with the exception of the remarks given in the previous paragraphs, stems from two excellent publications written by C. E. Cain (1953 and 1954): “Four Centuries on the Pascagoula,” and “Flags Over Mississippi.” Cain does not write about Horn Island, but he prefaces the more recent knowledge of this area by a chronological outline of the activities of the Pascagoula River country. In 1699, a French-Canadian by the name of Pierre le Moyne d’Iberville, who had sailed from France on September 28, 1698, broke ground on April 8, 1699 for the construction of Fort Maurepas at Old Biloxi (Ocean Springs). On May 3, 1699, Iberville sailed for France but returned later. His brother, Sieur Bienville, was left as King’s Lieutenant.

Rowland (1925) states that Bienville with five men explored the Pascagoula River and Bay in two bark canoes. They discovered Massacre Island (Dauphin) which he named Dolphin because a dead dolphin had been found on the beach. From there he turned west and found another island south of Round Island. This island he called Horn, owing to the fact that one of his men had lost a powder horn there. They paddled farther west to Ship Island and finally returned to Fort Maurepas. Bienville won the decoration of the Cross of St. Louis and a royal patent granting him Horn Island as a reward for the eminent services which he had rendered the colony.

McWilliams (1953) in a map opposite page 236 of his book, shows Horn Island as Isle Bienville. Guillaume Delisle was the probable
cartographer in 1718 (fig. 1-A). Isle Bienville was evidently used from 1717, when Bienville was granted Horn Island, until sometime later. Devin in 1719 and Serigny in 1720 still called the Island, Bienville, but D’Anville in 1732 (fig. 1-B) uses Horn. It should be noted that Petit Bois is not shown on these early maps and was possibly part of Dauphin at the time.

From 1732 until 1845, no definite data appears to be available. Many old timers and residents of Pascagoula, Gautier, Ocean Springs, Biloxi and Gulfport were interviewed, but with no avail. Doubtless, many folk of different nations (Spain, France, England, Portugal, etc.) roamed the islands, the Sound and the Gulf, but most of Horn Island history appears to have been lost. It seems logical to suppose that the Island was in a wild state and not conducive to habitation. In comparison to the other islands, it was quite a trip from the mainland. Records do not indicate that any wild animals especially abounded there, although it evidently teemed with alligators, cottonmouths, and perhaps copperheads. Since it is generally believed that Indians did not like to travel long distances on water, the Biloxis, Pascagoulas and Moctobis, reportedly about 1,000 strong, stayed close to the mainland.

Excellent fishing and shrimping in the Sound lured many to this area, and some folk may have strayed off the beaten path or been forced to land on Horn. Buttons of Union Army uniforms have been found in the sand and some military men were buried there at the time of the Civil War. It would seem logical that explorers besides Bienville or scientists may have been led to investigate the island in the old days. However, they might have been frightened off by men of ill repute, hiding and attempting to get a living from this wilderness. According to Harper (1958), William Bartram passed by Horn Island when traversing the Sound in “1777” (=1775) but did not visit it.

Horn Island was and still is frequently buffeted by severe storms, tidal waves, and hurricanes. The most important storms are equinocial. These and other notable climatic disturbances occurred in 1717, 1731, 1723, 1733, 1740, 1746, 1772, 1813, 1817, 1819, 1832, 1833, 1852, 1860, 1893, 1906, 1916, 1947 and 1960. Occasional water spouts have been observed in both the Gulf and the Sound.

A family named Waters lived on Horn Island from 1845 to about 1920, and raised cattle. I interviewed their descendants in Pascagoula. Their house was not far from the middle of the Island and near the Sound. The severe hurricane of 1906, during which Horn Island was nearly covered by water destroyed the Waters’ records and about one-half of the cattle. Only a pillar, bricks, and parts of a stove reveal where the Waters’ house once stood just north of Pond E (fig. 2.). In 1945, a dilapidated building was still standing to the south of the west end of Lagoon C (fig. 2). This was used as a clubhouse for sportsmen who fished and hunted.

During the 19th century some pines were chipped for resin, and it was distilled on the Island for turpentine. Lumber (mostly square timber, 16 x 16 inches), cut at Moss Point and Pascagoula was held off Horn in the Sound until ships could pick it up. At times, as many as 20 to 30 rafts were anchored along the Sound side, awaiting the arrival of sail-boats or small two-masted schooners from New Orleans.
or Mobile. No lumber was cut on the island except by the Waters for personal use. All evidence indicates that during historic times Horn Island has been isolated and populated little or not at all. It has been uninhabited since the Army left in 1945.

For a period in the last two centuries, some quantity of sand was hauled to New Orleans by the Jahncke Dredge Company and others for the manufacturing of glass and for water purification. Such operation was finally prohibited by the Bureau of Land Management. It is reported that a New Orleans leather company skinned quite a sizeable number of alligators in 1923, and used the hides for various leather goods. A farmer, L. S. Feldier, apparently owned some cattle on Horn just previous to World War II.

The Department of the Army acquired Horn Island on March 23, 1943, and building construction was begun June 16, 1943. The principal buildings were erected primarily in the administration, corral and laboratory areas (fig. 2). The laboratories were located not far from the Sound about 8 miles west of the administration area. To solve transportation problems, a company of Seabees built a narrow-gauge railroad from the corral to the laboratory area.

Approximately 2,027 acres were leased from 26 private individuals. The remaining 1,969 acres were acquired on a use permit from the Department of Interior on February 1, 1944. All live-stock and domestic animals, except those used in experimentation, were removed when the Army took over. Some hogs were still present in the spring of 1944 but these were removed soon thereafter. It is reported that hogs are still on the island and that their tracks have been seen, but I have not observed any. The unit was declared excess on August 13, 1945, and all building structures and materials not removed have long since fallen down.

Public Land Order No. 1636 was issued in October 1958, making part of Horn Island a wildlife refuge (fig. 3). The Fish and Wildlife Service of the U. S. Department of the Interior posted their acreage during 1960 to keep away any individuals who might encroach on their property. The “Gulf National Wildlife Refuges” office controls the Horn Island refuge, and John R. Walther with an office at Cadet Point, Biloxi, Mississippi, is in charge.

There is still some question as to the ownership of much of the private land, and neither the federal nor state governments have as yet come up with the answer. To the biologist or conservationist, it would be distinctly regrettable if “development” of the area were to be carried out. The entire island should be made a wildlife refuge.

IV. ANIMAL AND PLANT LISTS

The species listed here include only those animals and plants which were actually collected on or in the waters around Horn Island. This list, with the exception of the species reported by others, was obtained from collections made by me in 1944, 1945, and 1959-61, inclusive. The species recorded by other investigators are credited to them at the end of the lists of the various Phyla or Classes. The methods by which the insects were collected have been described by Rings and Richmond (1953), and the details need not be repeated. A New Jersey light trap was placed at each of the administration, laboratory, and corral areas (fig. 2). Fly traps were
placed in different locations from time to time and baited with miscellaneous materials. One hundred and twenty-nine field trips, exclusive of the fly and light trap collections, were made, principally in 1944, and most of them were devoted to insect collecting. Nevertheless, observations were made regarding other animals as well as plants. Eleven hundred species, 958 animals and 142 plants, are listed in this paper.

Attention should be called to the presence of the imported fire ant. During the summer months, various species of tabanids, sandflies, and stable flies are troublesome to humans. During the war an infestation of bedbugs occurred on the mattress of an officer, and an enlisted man was bitten by an assassin bug (*Triatoma sanguisuga* sanguisuga (Le C.) ) while sleeping. The bedbugs were doubtless introduced on bedding from the mainland. In the summer of 1944, many small staphylinids, scolytids, chloropids, chronomids, and ceratopogonids were attracted by the barracks' lights, and they entered in droves through the screens. Aerosol bombs satisfactorily controlled them. An extensive migration of monarch butterflies was observed at the extreme west end of the island on November 7, 1944. Low bushes, herbaceous plants, and debris were completely covered by these butterflies.

No list of Horn Island insects has ever been published with the exception of the mosquitoes (Rings and Richmond, 1953). Gunter and Christmas (1959) collected a corixid, *Trichocorixa verticalis* (Fieber), from offshore plankton in the Gulf and showed that it is a normal component of the plankton. Spilman (1959) included a tenebrionid, *Leichenum canaliculatum variegatum* (Klug), in his distributional list of *Leichenum* species of the United States. Froeschner (1960) described a new species of Cydnidae, and Steyskal (1960), a new species of Sciomyzidae. Wilson (1958) collected *Mesovelia mulsonfi bisignata* Jacewski in brackish pools. All of these species were collected by me in 1944.

The fish list contains many species caught from the shore by myself or other personnel stationed on the island during World War II. J. Y. Christmas' list of fishes, which were seined in the environs of the island, supplements my personal records. A mosquito fish, *Gambusia affinis* (Baird and Girard), was caught by hand in a pool, which was created by a spouting artesian well situated just to the west of the administration area. Many fresh or brackish-water fishes are present in the lagoons and ponds, but no special study has been devoted to them.

Cottonmouths (fig. 27) abound on the island, and a few alligators still frequent the swamps and lagoons. A coachwhip snake was killed on September 20, 1944, by one of the enlisted men. It measured 45½ inches in length. I was interested to observe on September 6, 1944, a chameleon (*Anolis carolinensis* Voigt) trying to capture some living flies in stoppered vials on a laboratory bench.

On January 29, 1959, a King Rail calmly bathed almost at my feet in a pool formed by a spouting artesian well just east of the laboratory area. The bird approached the pool without fear, took its bath, and left without paying the slightest attention to me.
Lowery and Newman (1954), and Bullis (1954) all contributed to the knowledge of the birds that frequent the Sound region. Several species of shore birds nest on a sandy area just north of the bathing beach (figs. 2 and 15).

There is a remarkable parallelism of the Horn Island plants with the "pine barrens" flora of coastal New Jersey, and with other eastern areas of the Coastal Plain. Pessin and Burleigh (1941) group the plants into marsh and wet-land plants, dry-land plants, lianas, shrubs, trees, and beach plants. The summer marine flora of the Sound was studied and reported on by Humm and Caylor (1957), and the sea grasses of the northern Gulf coast were reported on by Humm (1956). Algae, mosses, liverworts, and ferns were not collected during my study. Pink sundew is especially prevalent in a low region about two miles east of the administration area. Rosemary and groundsel are plants characteristic to the Island (figs. 11 and 26). One species of lichen, Cladonia rangiferina (L.) Weber is abundant on live oaks, yaupons, and myrtles. Dead cypress stumps were present near the east end in 1945, but no live cypress was found on the island. The stumps are now in the Gulf.

Most of the plants collected by Lowe (1921) are to be found in the Mississippi State University Herbarium. Some of the plants, which have been collected by R. B. Channell, are at Vanderbilt University, others are at Mississippi State University. Many of the plants which Delzie Demaree collected are in the Gray Herbarium at Harvard University, at Vanderbilt University, and at Mississippi State University, but could not be readily located.

**FAUNA**

Phylum PORIFERA — Sponges

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<thead>
<tr>
<th>Family</th>
<th>Species</th>
<th>Common Name</th>
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<tr>
<td>Clionidae</td>
<td>Cliona celata Grant</td>
<td>Sulphur Sponge</td>
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<td>Haliclona sp.</td>
<td>Deadman Fingers</td>
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<td>Microcionidae</td>
<td>Microciona prolifera Verrill</td>
<td>Red Sponge</td>
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<td>Phylum COELENTERATA</td>
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<tr>
<td>Astrangiidae</td>
<td>Astrangia astreiformis Milne Edwards and Haime</td>
<td>Stony Star Coral</td>
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<td>Campanulariidae</td>
<td>Obelia oxydentata Steckow</td>
<td>Double-branching Hydroid</td>
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<td>Hormathiidae</td>
<td>Calliactris tricolor (LeSueur)</td>
<td>Common Sea Anemone</td>
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<tr>
<td>Pelagidae</td>
<td>Dactyliometra quinquecirrhia L. Agassiz</td>
<td>Sea Nettle</td>
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<td>Renilla mulleri Köllicker</td>
<td>Short-stemmed Sea Pansy</td>
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<tr>
<td>Stomolophus meleagris L. Agassiz</td>
<td>Cabbagehead</td>
<td></td>
</tr>
<tr>
<td>Ulmaridae</td>
<td>Aurellia aurita Lamarck</td>
<td>Common White Jelly Fish</td>
</tr>
</tbody>
</table>

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69
Phylum CTENOPHORA — Comb Jellies

Beröe ovata Chamisso and Eisenhardt ............... Oval Comb Jelly

Mnemiopsis mccradyi A. Agassiz ..................... Sea Walnut

Phylum NEMERTEA — Ribbon Worms

Cerebratulus lacteus (Leidy) ......................... Large Ribbon Worm

Micrura leidyi (Verrill) ......................... Leidy's Ribbon Worm

Phylum BRYOZOA — Moss Animals

Adeonidae

Zoobotryon verticillatum (della Chiaje) .................

Bicellariidae

Bugula neritina Linneaus .................. Treelike Moss Animal

Membraniporidae

Membranipora membranacea Linneaus ............. Sea Mat

Phylum CHAETOGNATHA — Arrow Worms

Sagittidae

Sagitta hispida Conant ......................... Hispid Arrow Worm

Phylum ANNELIDA — Segmented Worms

Arenicolidae

Arenicola cristata Stimpson ....................... Bloodworm

Glyceridae

Glycera dibranchiata Ehlers ...................... Proboscis Bloodworm

Nereidae

Nereis pelagica Linneaus .................... Reddish Clamworm

Sabellariidae

Sabellaria floridensis Hartman .......... Hartman's Sabellaria

Sponiidae

Nerine agilis Verrill .......................... Clamworm

Species collected by Richmond.
Remainder taken from a Gulf Coast Research Laboratory list.

Phylum MOLLUSCA

Class Pelecypoda — The Clams

Arcidae — Ark Shells

Anadara brasiliensis (Lamarck) .................. Incongruous Ark

Anadara ovalis (Bruguière) ........................ Blood Ark

Anadara transversa (Say) ...................... Transverse Ark

Arca zebra Swainson ............................ Turkey Wing

Noetia ponderosa (Say) .......................... Ponderous Ark

Mytilidae — Mussels

Lithophaga bisulcata d'Orbigny ................ Mahogany Date Mussel

Pinnidae — Pen Shells

Atrina seminuda (Lamarck) ...................... Half-spined Pen Shell

Atrina serrata (Sowerby) .................. Saw-toothed Pen Shell

Plicatulidae — Plaited Shells

Plicatula gibbosa Lamarck ..................... Kitten's Paw

— 70 —
<table>
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<tr>
<th>Family</th>
<th>Genus</th>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leptonidae — Leptons</td>
<td><em>Kellia suborbicularis</em></td>
<td>(Thomson)</td>
<td>Thomson's Lepton</td>
</tr>
<tr>
<td></td>
<td><em>Mysella cuneata</em></td>
<td>Verrill &amp; Bush</td>
<td>Cuneate Lepton</td>
</tr>
<tr>
<td></td>
<td><em>Mysella planulata</em></td>
<td>(Stimpson)</td>
<td>Atlantic Flat Lepton</td>
</tr>
<tr>
<td>Pectinidae — Scallops</td>
<td><em>Aequipecten gibbus</em></td>
<td>Linnaeus</td>
<td>Calico Scallop</td>
</tr>
<tr>
<td></td>
<td><em>Aequipecten irradians</em></td>
<td>Say</td>
<td>Atlantic Bay Scallop</td>
</tr>
<tr>
<td>Anomidae — Jingle Shells</td>
<td><em>Anomia simplex</em></td>
<td>d’Orbigny</td>
<td>Common Jingle Shell</td>
</tr>
<tr>
<td>Ostreidae — Oysters</td>
<td><em>Crassostrea virginica</em></td>
<td>(Gmelin)</td>
<td>Eastern Oyster</td>
</tr>
<tr>
<td></td>
<td><em>Ostrea equestris</em></td>
<td>Say</td>
<td>Horse Oyster</td>
</tr>
<tr>
<td>Diplodontidae — Diplodons</td>
<td><em>Diplospatia punctata</em></td>
<td>Say</td>
<td>Common Atlantic Dipodon</td>
</tr>
<tr>
<td>Lucinidae — Lucines</td>
<td><em>Lucina amiantus</em></td>
<td>Dall</td>
<td>Lovely Miniature Lucina</td>
</tr>
<tr>
<td></td>
<td><em>Lucina floridana</em></td>
<td>Conrad</td>
<td>Florida Lucina</td>
</tr>
<tr>
<td></td>
<td><em>Lucina multilinata</em></td>
<td>Tuomey &amp; Holmes</td>
<td>Many-lined Lucina</td>
</tr>
<tr>
<td></td>
<td><em>Phacoecides radians</em></td>
<td>Conrad</td>
<td>Radiate Lucina</td>
</tr>
<tr>
<td>Cardiidae — Cockles</td>
<td><em>Dinocardium robustum</em></td>
<td>(Solander)</td>
<td>Giant Atlantic Cockle</td>
</tr>
<tr>
<td></td>
<td><em>Laevicardium laevigatum</em></td>
<td>(Linnaeus)</td>
<td>Common Egg Cockle</td>
</tr>
<tr>
<td></td>
<td><em>Laevicardium mortoni</em></td>
<td>(Conrad)</td>
<td>Morton’s Egg Cockle</td>
</tr>
<tr>
<td></td>
<td><em>Papryrida soleniformis</em></td>
<td>(Bruguière)</td>
<td>Spiny Paper Cockle</td>
</tr>
<tr>
<td></td>
<td><em>Trachycardium egmontianum</em></td>
<td>(Shuttleworth)</td>
<td>Prickly Cockle</td>
</tr>
<tr>
<td>Veneridae — Venus Clams</td>
<td><em>Anomalocardia cuneimeris</em></td>
<td>(Conrad)</td>
<td>Wedge-shaped Venus</td>
</tr>
<tr>
<td></td>
<td><em>Callista eucymata</em></td>
<td>Dall</td>
<td>Glory-of-the-Seas Venus</td>
</tr>
<tr>
<td></td>
<td><em>Chione cancellata</em></td>
<td>(Linnaeus)</td>
<td>Cross-barred Venus</td>
</tr>
<tr>
<td></td>
<td><em>Chione intapipurea</em></td>
<td>Conrad</td>
<td>Cribrara Venus</td>
</tr>
<tr>
<td></td>
<td><em>Chione grus</em></td>
<td>Holmes</td>
<td>Gray Pygmy Venus</td>
</tr>
<tr>
<td>Crassatellidae — Little Heavy Shells</td>
<td><em>Crassinella lunulata</em></td>
<td>Conrad</td>
<td>Lunate Crassinella</td>
</tr>
<tr>
<td></td>
<td><em>Cuna dalli</em></td>
<td>Vanatta</td>
<td>Moore’s Cuna</td>
</tr>
<tr>
<td></td>
<td><em>Dosinia discus</em></td>
<td>Reeve</td>
<td>Disk Dosinia</td>
</tr>
<tr>
<td></td>
<td><em>Maerocollista nimbosa</em></td>
<td>(Solander)</td>
<td>Sunray Venus</td>
</tr>
<tr>
<td></td>
<td><em>Mercenaria campechiensis</em></td>
<td>(Gmelin)</td>
<td>Southern Quahog</td>
</tr>
<tr>
<td></td>
<td><em>Parastarte trigonita</em></td>
<td>(Conrad)</td>
<td>3-Sided Parastarte</td>
</tr>
<tr>
<td>Tellinidae — Tellinas</td>
<td><em>Macoma brevirostris</em></td>
<td>Say</td>
<td>Short-snouted Macoma</td>
</tr>
<tr>
<td></td>
<td><em>Strigilla mirabilis</em></td>
<td>Philippi</td>
<td>White Strigilla</td>
</tr>
<tr>
<td></td>
<td><em>Tellina alternata</em></td>
<td>Say</td>
<td>Alternate Tellin</td>
</tr>
<tr>
<td></td>
<td><em>Tellina lineata</em></td>
<td>Conrad</td>
<td>Linen Tellin</td>
</tr>
<tr>
<td></td>
<td><em>Tellina versicolor</em></td>
<td>DeKay</td>
<td>Cousin Tellin</td>
</tr>
<tr>
<td>Semelidae — Semeles and Abras</td>
<td><em>Abra aequalis</em></td>
<td>(Say)</td>
<td>Common Atlantic Abra</td>
</tr>
<tr>
<td></td>
<td><em>Abra lioca</em></td>
<td>Dall</td>
<td>Dall’s Little Abra</td>
</tr>
<tr>
<td></td>
<td><em>Semele bellastriata</em></td>
<td>Conrad</td>
<td>Cancellate Semele</td>
</tr>
<tr>
<td></td>
<td><em>Semele nuculoides</em></td>
<td>Conrad</td>
<td>Nuculoid Semele</td>
</tr>
<tr>
<td>Donacidae — Wedge Shell</td>
<td><em>Donax obesus</em></td>
<td>d’Orbigny</td>
<td>Fat Wedge Clam</td>
</tr>
<tr>
<td></td>
<td><em>Donax variabilis</em></td>
<td>Say</td>
<td>Coquina Shell</td>
</tr>
</tbody>
</table>

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### Mactridae — Surf Clams

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. labiosa plicatella (Lamarck)</td>
<td>Sailor's Ear</td>
</tr>
<tr>
<td>M. fragilis Gmelin</td>
<td>Fragile Atlantic Mactra</td>
</tr>
<tr>
<td>M. lateralis (Say)</td>
<td>Dwarf Surf Clam</td>
</tr>
<tr>
<td>S. solidissima Dillwyn</td>
<td>Atlantic Surf Clam</td>
</tr>
</tbody>
</table>

### Solenidae — Razor Clams

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. minor Dall</td>
<td>Miniature Jack-knife Clam</td>
</tr>
</tbody>
</table>

### Lyonsiidae — Lyonsias

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>L. floridana Conrad</td>
<td>Florida Lyonsia</td>
</tr>
</tbody>
</table>

### Teredinidae — Ship Worms

Class Pteropoda

### Aplysiidae — Sea-hares

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. willcoxi Heilprin</td>
<td>Willcox's Sea-hare</td>
</tr>
</tbody>
</table>

### Arminidae — Nudibranchs

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. tigrina Rafinesque</td>
<td>Tiger Nudibranch</td>
</tr>
</tbody>
</table>

### Cavoliniidae — Pteropods

Class Gastropoda — The Snails (Univalves)

### Littorinidae — Periwinkles

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>L. irrorata Say</td>
<td>Marsh Periwinkle</td>
</tr>
</tbody>
</table>

### Hydrobidae — Littoridinas

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>V. nitidum Stimpson</td>
<td>Eel Grass Vitrinellid</td>
</tr>
<tr>
<td>S. mooreana Vanatta</td>
<td>Moore's Vitrinella</td>
</tr>
</tbody>
</table>

### Triphoridae — Triphorids

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>T. nigrocincta C. B. Adams</td>
<td>Black-circled Triphora</td>
</tr>
<tr>
<td>F. dubia d'Orbigny</td>
<td>Dubious Finella</td>
</tr>
</tbody>
</table>

### Epitoniidae — Epitonids

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. ruiculum (Kurtz)</td>
<td>Rock-inhabiting Peg</td>
</tr>
</tbody>
</table>

### Fissurellidae — Keyhole Limpets

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. cayenensis (Lamarck) ... Little or</td>
<td></td>
</tr>
<tr>
<td>L. limatula Reeves</td>
<td>File Fleshy Limpet</td>
</tr>
</tbody>
</table>

### Rissoinidae — Rissoinas

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. chesnelli Michaud</td>
<td>Chesnel's Rissoina</td>
</tr>
</tbody>
</table>

### Calyptraeidae — Boat Shells

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. convexa Say</td>
<td>Convex Slipper-shell</td>
</tr>
<tr>
<td>C. fornicata Linnaeus</td>
<td>Common Atlantic Slipper-shell</td>
</tr>
<tr>
<td>C. plana Say</td>
<td>Eastern White Slipper-shell</td>
</tr>
</tbody>
</table>

### Terebridae — Augur Shells

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>T. dislocata Say</td>
<td>Dislocated Augur</td>
</tr>
<tr>
<td>T. salleana Deshayes</td>
<td>Salle's Augur</td>
</tr>
</tbody>
</table>

### Volutidae — Volutes

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. junonia Shaw</td>
<td>Junonia</td>
</tr>
</tbody>
</table>

### Cancellariidae — Nutmegs

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. reticulata Linnaeus</td>
<td>Common Nutmeg</td>
</tr>
</tbody>
</table>

### Olividae — Olives

<table>
<thead>
<tr>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>O. sayana Ravenel</td>
<td>Lettered Olive</td>
</tr>
<tr>
<td>O. mutica (Say)</td>
<td>Little Olive</td>
</tr>
</tbody>
</table>
### Naticidae — Moon Shells

- **Natica pusilla** Say — Miniature Natica
- **Polinices duplicatus** (Say) — Shark Eye, Sand-color Snail

### Acteonidae — Small Bubble Shells

- **Haminoea antillarum** d’Orbigny — Globose Paper Bubble

### Cassidae — Helmet Shells

- **Phalium granulatum** (Born) — Scotch Bonnet

### Columbellidae — Dove Shells

- **Anachis avara** Say — Greedy Dove Shell
- **Anachis obesa** C. B. Adams — Fat Dove Shell
- **Mitrella lunata** (Say) — Lunar Columbella

### Pyramidellidae — Odostomes

- **Odostomia seminuda** (C. B. Adams) — Half-smooth Odostome

### Cerithiidae — Horn Shells

- **Bittium varium** Pfeiffer — Variable Bittium
- **Seila adamsi** H. E. Lea — Adams Miniature Cerith

### Muricidae — Rock Shells

- **Murex fulvescens** Sowerby — Spine-ribbed Murex
- **Thais haemastoma** (Linnaeus) — Oyster Drill

### Melongenidae — Large Whelks

- **Busycon perversum** (Linnaeus) — Perverse Whelk
- **Busycon spiratum** (Lamarck) — Pear Whelk

### Buccinidae — Whelks

- **Cantharus cancellarius** Conrad — Cancellate Cantharus

### Fasciolaridae — Fasciolarids

- **Fasciolaria Hunteria** (G. Perry) — Banded Tulip

### Nassariidae — Mud Whelks

- **Nassarius acutus** (Say) — Pointed Basket Shell
- **Nassarius vibex** (Say) — Common Eastern Nassa

### Ellobiidae — Ear Snails

- **Melampus bidentatus** Say — Salt Marsh Nassa

### Viviparidae — Swamp Snails

- **Viviparus** sp. — Swamp Snail

### Oleacinidae — Flesh-eating Land Snails

- **Euglandina rosea** (Ferrusac) — Rosy Euglandina

### Class Cephalopoda — Cuttlefishes

#### Octopodidae — Octopuses

- **Octopus vulgaris** Lamarck — Octopus


2. Other species collected by C. F. Baker prior to 1902.

   **NOTE:** Specimens collected by C. F. Baker deposited in the Academy of Natural Sciences of Philadelphia, Penna. in 1902. These were listed by E. G. Vanatta (1903).

3. Species collected by Rosso, 1951.

4. Species listed by Moore, 1960, in addition to the other collections. Unnumbered species collected by Richmond (1944-1961) deposited in the Academy of Natural Sciences of Philadelphia.
Phylum ARTHROPODA — Segmented Animals
Class Merostomata — Horseshoe Crabs
  Order Xiphosura
    Limulidae
  1 Limulus polyphemus Linnaeus ............... Horseshoe Crab
Class Crustacea — Crustaceans
Subclass Branchiopoda
  Branchiopodidae
  1 Branchipus sp. ................................ Fairy Shrimp
Subclass Ostracoda
  Lynceidae
  1 Eurycerus lamellatus (Muller) ................. Muller's Waterflea
Subclass Copepoda
  Acartiidae
  Acartia tonsa Dana ............................... Common Copepod
  Subclass Cirripedia
  Balanidae
  1 Balanus tintinnabulum Linnaeus ............... Acorn Barnacle
  1 Balanus eburneus Gould .......................... Ivory Barnacle
  1 Chelonibia patula (Rangoni) .................... Crab Barnacle
  Lepadidae
  Octolasmis mülleri (Coker) ....................... Goose-neck Barnacle
Subclass Malacostra
Suborder Isopoda
  Oniscidae
  1 Cylisticus convexus (DeGeer) .................... Convex Sowbug
Suborder Amphipoda
  Talitridae
  1 Orchestia platensis Krøyer ..................... Common Sandflea
  1 Talorchestia longicornis (Say) ................ Long-horned Sandflea
  Gammaridae
  1 Gammarus locusta (Linnaeus) .................... Seaweed Hopper
  Pontoporeiidae
  Haustorius sp. .................................... Haustorius
Order Stomatopoda
  Squillidae
  Squilla empusa Say .............................. King Shrimp, Mantis Shrimp
Order Decapoda
  Portunidae
  Arenaeus cribrarius (Lamarck) ................... Swimming Crab
  Callinectes ornatus Ordway ..................... Ornate Swimming Crab
  Callinectes sapidus Rathbun Common Blue Crab, Blue Edible Crab
  Ovalipes ocessatus guaduluiensis (de Saussure) Lady Crab
  Portunus spinicarpus (Stimpson) ............... Portunid Crab
  Portunus spinimanus Latreille .................. Portunid Crab
  Callianassidae
  Callianassa jamaiicense louisianensis Schmitt .................. Mud Shrimp

— 74 —
Hippidae
Emerita portoricensis Schmitt ................................ Puerto Rican Mole Crab
Emerita talpoida Say ........................................ Baitbug, Sandbug
Euceramus praelongus Stimpson ........................... Sandbug

Majidae
Libinia dubia Milne Edwards ................................. Long-beaked Spider Crab
Libinia emargamarta Leach ................................. Common Spider Crab

Calappidae
Hepatus epheliticus (Linnaeus) .............................. Box Crab

Xanthidae
Menippe mercenaria (Say) ................................. Stone Crab

Ocyopodidae
¹ Ocypode quadrata (Fab.) (Syn. O. albicans Bosc) .......... Ghost Crab

Paguridae
Pagurus annulipes (Stimpson) .............................. Hermit Crab
Pagurus floridanus (Benedict) .............................. Hermit Crab
Pagurus longicarpus Say ................................. Hermit Crab
¹ Pagurus pollicaris Say ................................ Large Hermit Crab

Penaeidae
¹ Penaeus aztecus Ives ................................ Brown Shrimp, Edible Shrimp
¹ Penaeus duorarum Burkenroad ......................... Pink Shrimp
¹ Penaeus fluviatilis Say ................................ White Shrimp, Common Shrimp
Sicyonia brevirostris (Stimpson) ........................... Rock Shrimp

Petrochiridae
Petrochirus bahamensis (Herbst.) ........................ Large Hermit Crab

Pinnotheridae
Pinnixia chacei Wass ........................................ Chace's Worm Crab
Pinnixia chaetopterna Stimpson ........................... Parchment Worm Crab

Porcellanidae
Porcellana sayana Leach ................................ Porcellanid Crab

Palaemonidae
Leander tenuicornis (Say) ................................ Sargassum Shrimp

Class Myriapoda
Subclass Chilopoda

Scolopendridae
¹ Scolopendra viridis Say ................................ Green Centipede

¹ Species collected by Richmond (1944)
Remainder taken from a Gulf Coast Research Laboratory list.

¹ Class Insecta (Hexapoda) — The Insects
Thysanura — Bristletails

Lepismidae
Lepisma saccharina Linnaeus

Odonata — Dragonflies, Damselflies

Aeshnidae
Anax junius (Drury)

— 75 —
Coenagrionidae
Anomalagrion hastatum (Say)
Argia sp.
Ischnura ramburii Selys
Ischnura verticalis (Say)

Libellulidae
Erythrodiplax berenice (Drury)
Pachydiplax longipennis (Burm.)
Erythemis simplicicollis (Say)

Plecoptera — Stoneflies
Genus?

Orthoptera — Grasshoppers, Crickets, Roaches, et al.

Acrididae
Dissosteira carolina (Linnaeus)
Psinidia fenestralis (Serv.)
Scirtetica marmorata picta (Scudd.)
Schistocera americana (Drury)
Trimerotropis citrina Scudd.

Blattidae
Blatella germanica (Linnaeus)
Eurycotis floridana (Walk.)
Parcoblatta sp.
Parcoblatta fulvescens (S. & Z.)
Periplaneta americana (Linnaeus)
Periplaneta brunnea Burm.
Periplaneta fuliginosa (Serv.)
Supella supellectilium (Serv.)

Gryllidae
Acheta sp.
Acheta assimilis (Fab.)
Anaxipha delicatula (Scudd.)
Nemobius sp.

Mantidae
Stagmomantis carolina (Joh.)

Tettigidae
Tettigidea lateralis (Say)

Tettigoniidae
Conceocephalus fasciatus (Deg.)
Conceocephalus spartinae (Fox)
Neoconocephalus tihops (Linnaeus)
Orchelimum concinnum Scudd.
Scudderia texensis (S. & P.)

Dermaptera — Earwigs

Labiduridae
Labidura riparia (Pallas)

— 76 —
Isoptera — Termites
   Kalotermitidae
   Kalotermes snyderi Light (Winged — S. E. U. S., Antilles)
   Rhinotermidae
   Reticulitermes sp.

Corrodentia — Psocids, Booklice
   Peripsocidae
   Peripsocus sp.
   Psocus sp., striatus Walk. or near.

Thysanoptera — Thrips
   Thrips sp.

Hemiptera — True Bugs
   Anthocoridae
   Lasiochilus hirtellus Drake & Harris
   Orius insidiosus (Say)
   Belostomatidae
   Belostoma flumineum Say
   Belostoma testaceum (Leidy)
   Lethocerus americanus (Leidy)
   Cimicidae
   Cimex lectularius Linnaeus
   Coreidae
   Leptoglossus phyllopus (Linnaeus)
   Corixidae
   Trichocorixa verticalis (Fieber)
   Cydnidae
   Amnestus basidentatus Froeschner (New species 1960)
   Amnestus pusio Blatchley
   Gelastocoridae
   Gelastocoris sp.
   Gelastocoris oculatus (Fab.)
   Lygaeidae
   Cymus virescens (Fab.)
   Myodocha serripes (Olivier)
   Nysius californicus alabamensis Baker
   Oedaneola crassimana (Fab.)
   Oncopeltus fasciatus (Dallas)
   Pachybrachius bilobatus (Say)
   Pachybrachius vinctus (Say)
   Paranurus longulus (Dallas)
   Mesovelidae
   Mesovelia mulsanti bisignata Jaczewski

   — 77 —
Miridae

Ceratocapsus sp.
Deraeocoris nebulosus (Uhler)
Lygus apicalis Fieber
Pilophorus vanduzei Knight
Polymerus basalis (Reuter)

Nabidae

Nabis capsiformis Germar

Neididae

Aknisus multispinus (Ashmead)

Ochteridae

Ochterus banksi Barber

Pentatomidae

Alcaorrhynchus grandis (Dallas)

Pentatominae

Edessa bifida (Say)
Nezara viridula (L.)
Pangaeus bilineatus (Say)
Thyanta calceata (Say)
Thyanta custator (Fab.)

Scutellerinae

Diolcus irroratus (Fab.)
Tetyra bipunctata (H. & S.)

Reduviidae

Emesa sp.
Triatoma sanguisuga sanguisuga (Le C.)

Saldidae

Pentacora hirta (Say)
Pentacora sphacelata (Uhler)
Saldula opacula (Zetterstedt)

Homoptera — Cicadas, leafhoppers, aphids, scale-bugs et al.

Cicadellidae

Balclutha abdominalis (Van D.)
Balclutha neglecta (De L. and Dev.)
Carneocephala flaviceps (Riley)
Chlorotettix viridius Van D.
Deltoccephalus flavicosta Stål
Draeculacephala sp.
Graminella nigrifrons (Forbes) — probably fascifrons (Stål)
Graminella villicus (Crumb)
Haldorus australis (De L.)
Macrosteles divisus (Uhler)
Menosoma cincta (O. and B.)
Spangbergiella vulnerata (Uhler)

Cicadidae

Diceroprocta vitripennis Say
Delphacidae
Delphacodes propinquus (Fieber)
Eudella weedi (Van D.)
Sogata furcifera (Horv.)

Lecanidae
Ceroplastes floridensis Comstock

Neuroptera — Lacewing-flies, antlions, et al.

Chrysopidae
Chrysopa sp.

Hemerobiidae
Sympherobius amiculus (Fitch)

Myrmeleontidae
Brachynemurus longicaudus (Burm.)
Heoelisis americana (Drury)
Myrmeleon crudelis Walter
Paranthadisus sp.

Trichoptera — Caddice-flies

Genus?

Lepidoptera — Butterflies, Moths, Skippers

Suborder Rhopalocera

Danaidae
Danaus gilippus berenice (Cramer)
Danaus plexippus plexippus (Linnaeus)

Heliconiidae
Agraulis vanillae nigrior Michener

Nymphalidae
Polygonia interrogationis (Fabricius)
Precis lavinia coenia (Huebner)
Speyeria cybele cybele (Fabricius)
Vanessa atalanta (Linnaeus)

Papilionidae
Papilio sp.

Pieridae
Eurema daia daia (Latreille)
Eurema lisa lisa (Boisduval and Le Conte)
Phoebis sennae eubule (Linnaeus)

Suborder Heterocera

Sphingidae
Enyo lugubris Linnaeus

Amatidae
Cissepfulvicollis Huebner
Cosmesoma myrodora Dyar
Didasyts belae Grote
Arctiidae

Apantesis radians Walker
Cisthene bellicula Dyar
Utetheisa bella Linnaeus

Phalaenidae (Noctuidae)

Doryodes sp.
Doryodes bistrialis Geyer
Leucania sp.
Nedra ramosula Guenee
Perigea sp.
Prodenia ornithogalli Guenee
Pseudaletia unipuncta Haworth

Pyralididae (Pyraustidae)

Genus?
Crambus sp.
Diorycricia zimmermani Grote
Hymenia perspectalis Huebner
Loxostege similalis Guenee
Sameodes elealis Walker

Diptera — Flies

Agromyzidae

Cerodontha dorsalis (Loew)
Liriomyza melampyga (Loew)
Liriomyza subpusilla group
Tethina sp.

Asilidae

Atomosia sp.
Erax sp.

Bibionidae

Philia sp.
Philia serotina (Loew)
Plecia nearctica Hardy

Bombyliidae

Anthrax sp.
Geron sp.

Calliphoridae

Callitroga sp.
Callitroga macellaria (Fab.)
Calliphora vicina R.D.
Calliphora vomitoria (L.)
Lucilia sp.
Lucilia illustris (Meig.)
Phaenicia sp.
Phaenicia cluvia (Walk.)
Phaenicia cuprina (Wied.)
Phaenicia sericata (Meig.)
Phormia regina (Meig.)
Cecidomyiidae

Anarete sp.
Asphondylia sp.
Lestremia sp.
Neolasioptera sp.
Phytophaga sp.

Ceratopogonidae

Alluaudomyia bella (Coq.)
Atrichopogon sp.
Bezzia sp.
Culicoides canithorax Hoffman
Culicoides furens (Poey)
Culicoides melleus (Coq.)
Dasyhelea sp.
Forcipomyia sp.
Forcipomyia fuliginosa (Meig.)
Heteromyia sp.
Leptoconops sp.
Monohelea sp.
Stilobezzia sp.

Chaoboridae

Chaoborus punctipennis Say
Corethrella brakeleyi Coq.

Chironomidae

Apedilum elachistus (Townes)
Calopsectra sp.
Coelotanypus tricolor (Loew)
Pelopia sp.
Pentaneura sp.
Pentaneura illinoensis (Mall.)
Pentaneura sp. (monilis group)
Pentaneura monilis (L.)
Polypedilum n. sp. (Townes MS)
Polypedilum sp.
Polypedilum parvum (Townes)
Procladius bellus (Loew)
Tendipes sp.
Tendipes attenuatus (Walker)

Chloropidae

Diplotoxa microcera Loew
Hippelates sp.
Hippelates bicolor Coq.
Hippelates particeps (Beck.)
Hippelates plebejus Loew
Hippelates pusio Loew
Lasiopleura capax (Coq.)
Oscinella sp.
Oscinella infesta Beck.
Siphonella cinerea Loew
Siphonella parva Adams
Siphonella punctifrons Beck.
Culicidae

Aedes sp.
Aedes aegypti (L.)
Aedes atlanticus D. & K.
Aedes atlanticus-tormentor D. & K.
Aedes infirmatus D. & K.
Aedes mitchellae (Dyar)
Aedes sollicitans (Walk.)
Aedes taeniorhynchus (Wied.)
Aedes vexans (Meig.)
Anopheles atropos D. & K.
Anopheles bradleyi King
Anopheles crucians Wied.
Anopheles crucians-bradleyi King
Anopheles quadrimaculatus Say
Culex sp.
Culex apicalis Adams
Culex erraticus D. & K.
Culex nigripalpus Theob.
Culex pilosus (D. & K).
Culex quinquefasciatus Say
Culex restuans Theob.
Culex solinarius Coq.
Culiseta inornata (Will.)
Mansonia perturbans (Walk.)
Psorophora sp.
Psorophora ciliata (Fab.)
Psorophora coninitis (Lynch-Arribalzaga)
Psorophora disicolor (Coq.)
Psorophora ferox (Humb.)
Psorophora howardii (Coq.)
Uranotaenia lowii (Theob.)
Uranotaenia sapphirina (O. S.)

Doliichopodidae

Chrysotus sp.
Gymnopterus sp.
Hydrophorus sp.
Pelastoneurus sp.
Pelastoneurus vagans Loew
Psilopus sp.

Drosophilidae

Drosophila sp.
Drosophila busckii Coq.
Drosophila guttifer a Walker
Drosophila melanogaster Meig.
Drosophila reperta Woll.
Leucophenga quadrimaculata (Walk.)

Empididae

Syneches sp.
Syneches phthia (Walk.)

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Ephydridae
Hydiellia sp.
Notiphila sp.
Notiphila olivacea Cr.
Paralimna decipiens Loew
Polytrichophora conciliata Cr.
Scatella sp.
Scatella stagnalis (Fall)
Zeros n. sp.

Micropezidae
Taeniaptera sp.
Taeniaptera trivittata Macq.

Muscidae
Atherigona orientalis Schin.
Bithoracochaeta leucoprocta (Wd.)
Coenosia ovata Stein
Fannia pusio (Wd.)
Fucellia maritima (Hal.)
Hylemia sp.
Limnophora sp.
Limnophora narona (Walk.)
Lispe albitarsis Stein
Morellia micans (Macq.)
Musca domestica L.
Ophyra aenesens (Wd.)
Phyllogaster sp.
Siphona irritans (L.)
Stomoxys calcitrans (L.)

Mycetophilidae
Leia bivittata Say

Otitidae
Euxesta sp.
Euxesta, nr. latifasciata (Wulp.)
Euxesta notata (Wied.)
Euxesta spoliata Loew

Phoridae
Megaselia sp.

Pipunculidae
Dorilas sp.

Psychodidae
Psychoda sp.
Psychoda alternata Say
Telmatosocopus albinpunctatus (Will.)

Rhabionidae (Leptidae)
Sarcophagidae
Genus?
Sarcophaga sp.
Sarcophaga bullata Pk.
Sarcophaga derelicta (Walk.)
Sarcophaga rapax Walk.
Sarcophaga sarracenioides Ald.

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Sciariidae
Sciara sp.

Sciomyzidae
Dictya iron Steyskal (New species 1960)
Pherbellia nana (Fallen)

Sphaeroceridae
Copromyza sp.
Leptocera sp.
Leptocera fontinalis Fallen

Syrphidae
Mesograpta nr. boscii (Mscq.)
Tubifera sp.

Tabanidae
Chrysops sp.
Chrysops atlanticus Pech.
Chrysops flavidus Wied.
Chrysops univittatus Macq.
Tabanus sp.
Tabanus abdominalis Fabr.
Tabanus acutus (Bigot)
Tabanus atratus (Fab.)
Tabanus glaciator Stone
Tabanus lineola Fab.
Tabanus nigrovittatus Macq.
Tabanus quinquevittatus Wied.
Tabanus sparsus milleri Whitn.
Tabanus trijunctus Walker

Tachinidae
Achaetoneura sp. nr. archippivara (Will.)
Eucelatoria rubentis (Coq.)
Paradidyma singularis (Townes)
Siphophyto floridensis Townes

Tephritidae
Trupanea actinobola (Loew)
Trupanea vicina (Wulp)
Xanthaciura connexionis Benj.

Tipulidae
Subfamily Tipulinae
Pales sp.
Pales suturalis costomarginata (Dietz)
Tipula (Yamatotipula) floridensis Alex.
Tipula (Yamatotipula) ludoviciana Alex.
Subfamily Limoniinae

Tribe Limoniini

Limonia sp.
*Limonia (Limonia) rara (O. S.)
*Limonia (Dicranomyia) distans (O. S.)
*Limonia (Dicranomyia) floridana (O. S.)
*Limonia (Dicranomyia) liberta (O. S.)
*Limonia (Rhipidia) domestica (O. S.)
*Limonia (Geranomyia) rostrata (Say)
*Limonia (Geranomyia) vanduzeei (Alex.)
*Helius (Helius) flavipes (Macquart)

Tribe Hexatomini

Pseudolimnophila (Pseudolimnophila) luteipennis (O. S.)

Tribe Eriopterini

*Gonomyia (Lipophleps) puer Alex.
*Gonomyia (Lipophleps) sulphurella Osten Sacken
Erioptera sp.
Erioptera (Symplecta) cana (Walker)
Erioptera (Erioptera) furcifer Alex.
Erioptera (Ilisia) graphica O. S.
Erioptera (Mesocyphona) knabi Alex.
*Erioptera (Mesocyphona) parva O. S.
*Toxorhina (Toxorhina) magna O. S.
*New to Mississippi list — according to Alexander.

Coleoptera — Beetles

Alleculidae

Hymenorus sp.

Anobiidae

Ernobius sp.
Ernobius mollis (L.)
Lasioderma serricorne (Fab.)
Petalium bistriatum (Say)

Anthicidae

Anthicus sp.
Notoxus sp.

Bruchidae

Acanthoscelides obtectus (Say)
Megacerus coryphae (Oliv.)

Buprestidae

Buprestis lineata Fab.
Buprestis maculipennis Gory
Chalcophora sp.
Chalcophora georgiana (Le C.)
Chalcophora virginiensis (Drury)
Chrysobothris floricola Gory

Byrrhidae

Limnichoderus sp. or (Limnichius)

— 85 —
Cantharidae
Chauliognathus sp.
Chauliognathus marginatus Fab.

Carabidae
Agonoderus sp.
Agonoderus infuscatus (Dej.)
Agonoderus lecontei Chd.
Ardistamis schaumi Le C.
Bembidion constrictum (Le C.)
Calosoma sayi Dej.
Calosoma scrutator (Fab.)
Clivinia sp.
Dyschirius sp.
Galeritajanus Fab.
Harpalus pennsylvanicus De G.
Harpalus viridiaenus Beauv.
Oodes amaroides Dej.
Oodes duodecimstriatus Chev.
Oodes quartuordecimstriatus Chaud.
Tachistodes testaceus (Dej.)
Tetragonoderus intersectus Germ.
Triliarthrus badipennis (Hald.)

Cerambycidae
Acanthocinus nodosus (Fab.)
Acanthocinus obsoletus (Oliv.)
Anoplium inerme (Newm.)
Desmocerus sp.
Eupagonius tomentosus (Hald.)
Smodicum cucujiforme (Say)
Stenodentes dasystomus Say

Chrysomelidae
Altica sp.
Altica litigata Fall
Altica ludoviciana Fall
Diabrotica undecimpunctata howardi Barber
Lema sp.
Oedionychus concinna (Fab.)
Systena frontalis (Fab.)

Cicindelidae
Cicindela dorsalis sauleyi (Guer.)
Cicindela trifasciata ascendens (Le C.)
Megacephala (Tetracha) carolina L.

Cleridae
Cymatodera undulata (Say)
Necrobia rutipes (DeGeer)

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Coccinellidae

Chilocorus bivulnerus Muls.
Coleomegilla maculata fuscilabris Muls.
Cycloneda sanguinea (L.)
Hippodamia convergens Guer.
Hyperaspis binotata Say
Naemia serialis (Melsh.)
Olla abdominalis plagiata Csy.

Cucujidae

Sylvanus bidentatus (Fab.)

Curculionidae

Brachyburnus electus Germ.
Hyperodes anthracinus (Dtz.)
Pachyloopus picivorus Germ.
Perigaster cretura (Hbst.)
Smicronyx sculpticollis Gsy.

Dryopidae

Pelonomus (near obscurus Le C.)

Dytiscidae

Agabus johannis Fall
Bidessus pullus pullus Le C.
Copelatus chevrolati Aubé
Hydaticus sp.
Hydaticus bimarginatus Say
Laccophilus proximus (Say)
Thermonectus basilaris (Harris)

Elateridae

Agrypnus sp.
Alaus sp.
Alaus myops (Fab.)
Conoderus sp.
Conoderus bellus (Say)
Ischiodontus sp.

Elateridae

Dineutes sp.
Dineutes carolinus Le C.

Gyrinidae

Haliplidae

Peltodytes sp.
Peltodytes sexmaculatus Robts.

Helodidae

Cyphon sp.
Ora sp.

Heteroceridae

Heterocerus undatus Melsh.

Histeridae

Saprinus pennsylvanicus (Payk.)
Hydrophilidae

Ancaena limbata (F.)
Berosus sp.
Berosus exiguis Say
Berosus infuscatus Le C.
Chaetarthria pollida (Le C.)
Cercyon praetextatus (Say)
Enochrus hamiltoni (Horn)
Enochrus ochraceus (Melsh.)
Enochrus perplexus (Le C.)
Enochrus pygmaeus (F.) complex
Helobata striata (Brullé)
Hydrobiomorpha casta (Say)
Hydrochus simplex (Le C.) (Hydraenidae)
Paracymus nanus (Fall)
Paracymus subcupreus (Say)
Tropisternus blatchleyi d’Orch.
Tropisternus lateralis nimbatus Say
Tropisternus mexicanus striolatus (Le C.)
Tropisternus quadristriatus Horn
Tropisternus striolatus Le C.

Lampyridae

Photuris pennsylvanica (DeGeer)

Melyridae

Collops nigriceps floridanus Schaeffer

Mordellidae

Mordellistena sp.

Nitidulidae

Carpophilus sp.

Noteridae

Suphisellus floridanus Blatch.
Suphisellus gibbulus Crotch.

Oedemeridae

Alloxacis dorsalis (Mels.)
Alloxacis pleuralis (Le C.)
Oxacis sp.

Scarabaeidae

Anomala sp.
Anomala flavipennis Burm.
Aphodius sp.
Aphodius cuniculus Chev.
Aphodius lividus (Oliv.)
Aphodius ruricola Melsh.
Ataenius sp.
Ataenius alternatus Melsh.
Ataenius cylindrus Horn
Ataenius imbricatus (Melsh.)
Ataenius miamii Cartwright
Ataenius platensis (Blanch.)
Ataenius salutator Fall
Ataenius wenzelii Horn
Bothynus cuniculus (Fab.)
Bothynus gibbosus (DeGeer)
Cyclocephala immaculata (Oliv.)
Cyclocephala seditiosa (Le C.)
Diploaxis sp.
Dyscinetus morator (Fab.)
Phyllophaga sp.
Phyllophaga latifrons (Le C.)
Phyllophaga prununculina (Burm.)
Pleurophagus longulus Cartwright
Psammodius bidens Horn
Trux suberosus (Fab.)

Scolytidae
Ips calligraphus Germ.
Ips grandicollis (Eich.)
Pityoborus comatus (Zimm.)
Xyleborus affinis (Eich.)

Staphylinae
Aleochara bipustulata (L.)
Atheta virginica (Bernhaver)
Bledius sp.
Bledius analis Le C.
Bledius cardatus Say
Bledius gularis Er.
Bledius punctatissimus Le C.
Bledius turbulentus Csy.
Creophilus maxillosus (L.)
Paederus littorarius Grav.
Pinophilus parvus Le C.
Philonthus sp.

Tenebrionidae
Alobates pennsylvanica (DeGeer)
Alphitobius diaperinus (Panz.)
Uloma punctulata Le C.
Leichenenum canaliculatum variegatum (Klug)
Phaleria longula Le C.

Hymenoptera — Bees, Wasps, Ants, et al.

Andrenidae
Perdita swenki Cwfd.

Apidae
Bombus americanorum (F.)
Psithyrus variabilis (Cr.)

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Braconidae
Apanteles sp.
Aphaereta muscae Ashm.
Macrocentrus delicatus Cr.
Meteorus sp.
Meteorus indagator (Riley)
Meteorus leviventris (Wesmael)
Microplitis sp.
Phanerotoma sp.
Phanerotoma fasciata Prov.
Rogas sp.
Rogas stigmator (Say)

Chalcididae
Genus?
Chrysis intricata Br.

Chrysididae

Formicidae
Camponotus abdominatis floridanus (Buckley)
Camponotus nearcticus Emery
Crematogaster laeviuscula Mayr.
Dorymyrmex sp.
Dorymyrmex pyramiens var. flavus McCook
Formica (Neoformica) sp.
Formica pallide-fulva schaufussi Mayr.
Iridomyrmex humilis Mayr.
Iridomyrmex pruinosus (Roger)
Pheidole sp.
Pogonomyrmex badius (Latr.)
Ponera opaciceps Mayr.
Solenopsis saevissima richteri (Forel)
Tretramorium geneense (Fab.)

Halictidae
Agapostemon virescens (Fab.)

Ichneumonidae
Enicospilus sp.
Itoplectis conquistor (Say)

Pompilidae
Anoplius sp.
Anoplius virginianus (Cr.)

Pteromalidae
Pteromalus sp.

Sphecidae
Bembix carolina (Fab.)
Chalybion californicum (Sauss.)
Microbembex monodonta (Say)
Miscophus americanus Fox
Nitela virginiensis Roh.
Oxybelus emarginatum Say
Sceliphron caementarium (Dru.)

All insects listed collected by Richmond.
Class Arachnida
Araneida — Spiders

*Theridiidae* — Comb-footed Spiders
*Latrodectus mactans* (Fab.) ......................... Black Widow

*Araneidae* — Typical Orb-weavers
*Eustala anastera* (Walckenaer) ..................... Orb-weaver

*Argiopidae* — Orb-weavers
*Gasteracantha cancriformis* (Linnaeus) .......... Spiny Orb-weaver

*Clubionidae* — Clubionids
*Clubiona* sp.

*Lycosidae* — Wolf-spiders
*Lycosa* sp.

*Atidae* — Jumping Spiders
*Philippus variegatus* C. Koch ................. Southern Philippus

*Micryphantidae* — Micryphants

*Genus?*
*Pseudoscorpionida* — Pseudoscorpions
*Pseudoscorpionidae* — False Scorpions

*Genus?*

*Acarina* — Mites and Ticks
*Ixodidae* — Ticks
*Dermapteron variabilis* (Say) ....................... Wood Tick
*Haemaphysalis leporis-palustris* (Pack.) .......... Rabbit Tick

*Hydrachnidae* — Water-mites
*Hydrachnida* sp.

*Trombiidae* — Harvest Mites
*Eutrombicula alfreddugesi* (Oudemans) .... Chigger, Harvest Mite

**PHYLUM ECHINODERMATA**

Class Holothuroidea

*Synaptidae* — Sea Cucumbers
*Leptosynapta crassipotina* H. L. Clark .......... Sea Cucumber

*Class Echnoidea*

*Scutellidae* — Sand Dollars
*Mellita quinquiesperforata* (Leske) ............. Keyhole Dollar

*Class Asteroidea*

*Luididae* — Starfishes
*Luidia alternata* (Say) ............................ Say's Starfish
*Luidia clathrata* (Say) ............................ Flat Starfish

*Class Ophiuroidea*

*Amphiodia gyraspis* H. L. Clark ................... Brittle Star
*Amphiodia limbata* (Grubb) ........................ Brittle Star
*Hemipholis elongata* (Say) ........................ Elongate Brittle Star
*Ophiophragmus filigraneus* (Lyman) ............ Brittle Star

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PHYLUM ENTEROPNEUSTA
Balanidae — Acorn Worms
Balanoglossus sp. ................................ Acorn Worm

PHYLUM CHORDATA
Subphylum Urochorda
Molgulidae — Seagrasses
Molgula manhattensis DeKay ............. Sea Squirt, Seagrasses

Subphylum Cephalochorda
Branchiostomidae — Lancelets
Branchiostoma caribaeum Sundevall Virginia Lancelet, Amphioxus

Subphylum Craniata
Class Pisces — The Fishes
Dasyatidae — Sting Rays
8 Dasyatis sayi (LeSueur) ................ Say's Stingray
8 Dasyatis sabina (LeSueur) ............ Sabina Stingray

Lepisosteidae — Garpikes
8 Lepisosteus spatula (Lacépède) ........ Alligator Garpike

Clupeidae — Herrings
1 Brevoortia patronus (Latrobe) .......... Large Scale Gulf Menhaden
1 Harengula pensacolae Goode & Bean Broad Sardine, Razorbelly
1 Opisthomonema oglinum (LeSueur) ................ Thread Herring

Engraulidae — Anchovies
1 Anchoa hepsetus (Bonnaterre) ........ Striped Anchovy

Synodontidae — Lizard Fishes
1 Synodus foetens (Linnaeus) ............... Lizardfish

Tachysuridae — Catfishes
8 Bagre marinus (Mitchill) ............... Gafftopsail Catfish
1 Galeichthys felis (Linnaeus) ............. Sea Catfish

Echelidae — Worm Eels
8½ Myrophis punctatus Lütken ........... Speckled Worm Eel

Belonidae — Needlefishes
1 Strongylura marina (Walbaum) .......... Green Needlefish

Hemiramphidae — Halfbeaks
1½/¾ Hyporhamphus unifasciatus (Ranzani) ........ Halfbeak

Cyprinodontidae — Top Minnows
8½ Cyprinodon variegatus variegatus Lacépède ..... Pursy Pupfish
3 Fundulus dispar notti (Agassiz) Southern Starheaded Top Minnow
3 Fundulus grandis (Baird & Girard) .... Gulf Mummichog
1 Fundulus similis (Baird and Girard) .... Longnose Killifish
1 Lucania parva (Baird and Girard) .......... Rainwater Fish

Poeciliidae — Livebearers
8 Gambusia affinis (Baird and Girard) .......... Mosquito Fish
3 Mollienesia latipinna LeSueur ................ Sailfin Molly
<table>
<thead>
<tr>
<th>Family</th>
<th>Species</th>
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<tbody>
<tr>
<td>Syngnathidae</td>
<td>Syngnathus hudsonius DeKay</td>
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<td>Syngnathus louisianae (Günther)</td>
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<td>Moronidae - Perches</td>
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<td>Rachycentridae - Cobias</td>
<td>Rachycentron canadum (Linnaeus)</td>
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<td>Carangidae - Jacks</td>
<td>Caranx latus Agassiz</td>
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<td>Trachinotus carolinus (Linnaeus)</td>
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<td>Trachinotus falcatus (Linnaeus)</td>
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<td>Oligopilotes saurus (Schneider)</td>
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<td>Roccus mississippiensis Jordan and Eigenmann</td>
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<td>Cynoglossidae - Croakers</td>
<td>Bairdiella chrysourus (Lacépède)</td>
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<td>Larimus fasciatus Holbrook</td>
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<td>Leiostomus xanthurus Lacépède</td>
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<td>Menticirrhus sp.</td>
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<td>Menticirrhus littoralis (Holbrook)</td>
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<td>Menticirrhus xanthias (Lacépède)</td>
</tr>
<tr>
<td></td>
<td>Micropogon undulatus (Linnaeus)</td>
</tr>
<tr>
<td></td>
<td>Pogonias cromis (Linnaeus)</td>
</tr>
<tr>
<td></td>
<td>Sciaenops aequilata (Linnaeus)</td>
</tr>
<tr>
<td>Gadidae - Jennys</td>
<td>Eucinostomus argenteus Baird and Girard</td>
</tr>
<tr>
<td></td>
<td>Eucinostomus gula (Cuvier)</td>
</tr>
<tr>
<td>Otolithidae - Otolithids</td>
<td>Cynoscion nebulosus (Cuvier, Valenciennes)</td>
</tr>
<tr>
<td>Sciaenidae - Croakers</td>
<td>Bairdiella chrysourus (Lacépède)</td>
</tr>
<tr>
<td></td>
<td>Larimus fasciatus Holbrook</td>
</tr>
<tr>
<td></td>
<td>Leiostomus xanthurus Lacépède</td>
</tr>
<tr>
<td></td>
<td>Menticirrhus sp.</td>
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<td></td>
<td>Menticirrhus littoralis (Holbrook)</td>
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<td>Menticirrhus xanthias (Lacépède)</td>
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<td></td>
<td>Micropogon undulatus (Linnaeus)</td>
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<tr>
<td>Sparidae - Porgies</td>
<td>Archosargus probatocephalus (Walbaum)</td>
</tr>
<tr>
<td></td>
<td>Lagodon rhomboides (Linnaeus)</td>
</tr>
<tr>
<td>Dactyloscopidae - Sand Stargazers</td>
<td>Dactyloscopus tridigitatus Gill</td>
</tr>
<tr>
<td>Stromateidae - Harvest Fishes</td>
<td>Poronotus triacanthus (Peck)</td>
</tr>
<tr>
<td>Uronoscopidae</td>
<td>Astroscopus y-graecum Cuvier and Valenciennes</td>
</tr>
<tr>
<td>Blenniidae - Blennys</td>
<td>Chasmodes saburrae Jordan and Gilbert</td>
</tr>
<tr>
<td>Stromateidae - Harvest Fishes</td>
<td>Poronotus triacanthus (Peck)</td>
</tr>
<tr>
<td>Sphyraenidae - Barracudas</td>
<td>Sphyraena borealis DeKay</td>
</tr>
<tr>
<td>Mugilidae - Mullets</td>
<td>Mugil cephalus Linnaeus</td>
</tr>
<tr>
<td></td>
<td>Mugil curema Cuvier and Valenciennes</td>
</tr>
</tbody>
</table>
Atherinidae — Silversides
1. Membras marticus Cuvier and Valenciennes Rough Silversides
1. Menidia beryllina (Cope) Tidewater Silversides
2/5. Menidia menidia (Linnaeus) Common Silversides
(EDITORIAL NOTE: We believe that this is a misidentification, but the specimen is available for examination whenever desired and we have let the author’s idea stand).

Triglidae — Sea Robins
1. Prionotus evolans (Linnaeus) Longwing Searobin

Batrachoididae — Toadfishes
2. Opsanus tau (Linnaeus) Toadfish

Pleuronectidae — Flounders
1. Citharichthys spilopterus Gunther Bigeye Spotted Flounder
1. Paralichthys albigutta Jordan and Gilbert Sand Flounder
1/5. Paralichthys lethostigma Jordan, Gilbert Southern Large Flounder

Ostraciidae — Trunkfishes
3. Lactophrys tricornis (Linnaeus) Three-spined Cowfish

Cynoglossidae — Tonguefishes
1. Symphurus plagiusa (Linnaeus) Oblique Tonguefish

Diodonidae — Porcupine Fishes
1. Chilomycterus schoepfi (Walbaum) Burrfish

1. Netted by Christmas off Horn Island.
2. Caught by Richmond et al. from shore or in water on island.
3. Inlets on landward beach of Horn Island — Fowler (1931).
4. Identified by Fowler and deposited in the Academy of Natural Sciences of Philadelphia.

Class Amphibia — The Frogs, Toads, Salamanders
Bufoidae — Toads
1. Bufo terrestris Bonnaterre Southern Toad

Hylidae — Tree Frogs
Acris gryllus gryllus Le C. Cricket Frog
Hyla cinerea Daudin Green Treefrog
Hyla squirella Bosc Southern Treefrog
1. Also reported by Smith and list (1955).

Class Reptilia — The Reptiles
Loricata
Crocodilidae — Alligators and Crocodiles
Alligator mississippiensis (Daudin) Alligator

Squamata
Sauria — Lizards
Anguidae — Lizards
1. Ophisaurus ventralis (Linnaeus) Eastern Glass Lizard

Iguanidae — Iguanas
1. Anolis carolinensis Voigt. Chameleon, Tree Lizard

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Teiidae — Teiids

1 Cnemidophorus sexlineatus (Linnaeus) .......... Six-lined Racerunner, Sand Lizard

Scincidae — Skinks

Eumeces fasciatus (Linnaeus) .................. Five-lined Skink
2 Scincella laterale (Say) ..................... Ground Lizard

Serpentes — Snakes

Colubridae — Common Harmless Snakes

Coluber constrictor constrictor Linnaeus .................. Black Racer
Heterodon platyrhinos Latreille .................... Eastern Hognose Snake
Lampropeltis getulus holbrooki Stejneger .......... Speckled King Snake
Masticophis flagellum flagellum (Shaw) ............ Coachwhip Snake
1 Natrix clarkii (Baird and Girard) ............. Gulf Salt-marsh Snake
Natrix cyclops cyclops (Dumeril and Bibron) Green Water Snake
Natrix sipedon confluens (Linnaeus) .......... Broad-banded Water Snake

Crotalidae — Poisonous Snakes

Agkistrodon contortrix contortrix (Linnaeus) .......... Copperhead
1 Agkistrodon piscivorus leucostoma (Troast) ........ Cottonmouth

Testudinata — Turtles

Cheloniidae — Sea Turtles

Chelonia mydas (Linnaeus) ........................ Green Turtle

Emydidae — Freshwater and Marsh Turtles

Malaclemys palustris (Gmel) ...................... Diamondback Terrapin
1 Pseudemys concinna (Le Conte) .............. Le Conte's Terrapin, Cooter

1 Reported also by Allen (1932).
2 Reported by Smith and List (1955).

Class Aves — The Birds

Gaviidae

Gavia immer immer (Brünnich) ................. Common Loon—M

Colymbidae

1 Podilymbus podiceps podiceps (Linnaeus) ...... Pied-billed Grebe—W

Pelecanidae

Pelecanus erythrorhynchos Gmelin .................. White Pelican—W
1 Pelecanus occidentalis occidentalis Linnaeus ... E. Brown Pelican—P

Phalacrocoracidae

Phalacrocorax auritus auritus (Lesson) Double-crested Cormorant—W

Anhingidae

1 Anhinga anhinga leucogaster (Linnaeus) ........ Water-Turkey—V

Fregatidae

Fregata magnificens Mathews ........ Magnificent Frigate Bird—S

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Ardeidae

1. *Ardea herodias herodias* (Linnaeus)       Great Blue Heron—P
2. *Butorides virescens virescens* (Linnaeus)       Green Heron—S
3. *Casmerodius albus egretta* (Gmelin)       American Egret—P
4. *Egretta thula thula* (Molina)       Snowy Egret—S
5. *Hydranassa tricolor ruficollis* (Gosse)       Louisiana Heron—P
7. *Nyctanassa violacea violacea* (Linnaeus)       Yellow-crowned Heron—M
8. *Nycticorax nycticorax hoactli* (Gmelin)       Black-crowned Night Heron—S

Anatidae

1. *Anas platyrhynchos platyrhynchos* (Linnaeus)       Common Mallard—W
2. *Anas rubripes rubripes* Brewster       Black Duck—W
3. *Branta canadensis canadensis* (Linnaeus)       Canada Goose—W
4. *Chen caerulescens* (Linnaeus)       Blue Goose—M
5. *Chen hyperborea hyperborea* (Pallas)       Lesser Snow Goose—M
6. *Clangula hyemalis* (Linnaeus)       Old-Squaw—W
7. *Dofila acuta tzitzioha* (Vieillot)       Pintail—W
8. *Mareca americana* (Gmelin)       Baldpate—W
10. *Nettion carolinense* (Gmelin)       Green-winged Teal—W
11. *Nyroca affinis* (Eyton)       Lesser Scaup Duck—W
12. *Nyroca americana* (Eyton)       Redhead—W
13. *Nyroca marila neartcica* (Stejneger)       Greater Scaup Duck—W
15. *Querquedula discors* (Linnaeus)       Blue-winged Teal—M

Accipitridae

1. *Circus hudsonius* (Linnaeus)       Marsh Hawk—W
2. *Falco peregrinus anatum* Bonaparte       Duck Hawk—W
3. *Falco sparverius sparverius* (Linnaeus)       Eastern Sparrow Hawk—S
4. *Haliaeetus leucocephalus leucocephalus* (Linnaeus)       S. Bald Eagle—S
5. *Pandion haliaetus carolinensis* (Gmelin)       Osprey—S

Rallidae

1. *Fulica americana americana* Gmelin       Coot—W
2. *Iornornis martinica* (Linnaeus)       Purple Gallinule—P
3. *Rallus elegans elegans* Audubon       King Rail—P

Charadriidae

1. *Charadrius hiaticula semipalmatus* Bonaparte       Semipalm. Plover—M
2. *Charadrius melodus* Ord       Piping Plover—M
3. *Charadrius vociferous vociferous* (Linnaeus)       Killdeer—P
5. *Squatarola squatarola* (Linnaeus)       Black bellied Plover—M

Scolopacidae

1. *Actitis macularia* (Linnaeus)       Spotted Sandpiper—W
2. *Capella delicata* (Ord)       Wilson's Snipe—W
3. *Catoptrophorus semipalmatus semipalmatus* (Gmelin)       E. Willet—S
4. *Crexcrea alba* (Pallas)       Sanderling—W
5. *Ereunetes maritii* Cabanis       Western Sandpiper—M
6. *Ereunetes pusillus* (Linnaeus)       Semipalmated Sandpiper—M
7. *Limnodromus griseus griseus* (Gmelin)       Short-billed Dowitcher—M
Pelidna alpina sakhalina (Vieillot) Red-backed Sandpiper—W
Pisobia melanotos (Vieillot) Pectoral Sandpiper—M
Pisobia minutilla (Vieillot) Least Sandpiper—M
Totanus flavipes (Gmelin) Lesser Yellowlegs—M
Totanus melanoleucus (Gmelin) Greater Yellowlegs—M
Tringa solitaria solitaria Wilson Eastern Solitary Sandpiper—M

Laridae
Chlidonias nigra surinamensis (Gmelin) Black Tern—M
Hydroprogne caspia imperator (Coutes) Caspian Tern—W
Larus argentatus smithsonianus Coutes Herring Gull—W
Larus atricilla megalopterus Bruch Laughing Gull—P
Larus delawarensis Ord Ring-billed Gull—W
Larus philadelphia (Ord) Bonaparte's Gull—W
Rynchops nigra nigra Linnaeus Black Skimmer—S
Sternula antillarum antillarum (Lesson) Least Tern—S
Sternula forsteri Nuttall Forster's Tern—M
Sternula hirundo Linnaeus Common Tern—W
Thalasseus maximus maximus Boddart Royal Tern—V

Columbidae
Zenaidura macroura carolinensis (Linnaeus) E. Mourning Dove—P

Cuculidae
Coccyzus americanus americanus (Linnaeus) Yellow-billed Cuckoo—S
Coccyzus erythropthalmus (Wilson) Black-billed Cuckoo—M

Caprimulgidae
Chordeiles minor chapmani Coutes Florida Nighthawk—S

Alcedinidae
Megaceryle alcyon alcyon (Linnaeus) Eastern Belted Kingfisher—P

Picidae
Colaptes auratus Linnaeus Flicker—P
Sphyrapicus varius varius (Linnaeus) Yellow-bellied Sapsucker—W

Tyrannidae
Myiarchus crinitus crinitus (Linnaeus) S. Crested Flycatcher—S
Myiochanes virens (Linnaeus) Eastern Wood Pewee—S
Sayornis phoebe (Latham) Eastern Phoebe—W
Tyrannus tyrannus (Linnaeus) Eastern Kingbird—S

Hirundinidae
Hirundo erythrogaster (Boddart) Barn Swallow—M
Iridoprocne bicolor (Vieillot) Tree Swallow—W

Sittidae
Sitta canadensis Linnaeus Red-breasted Nuthatch—W

Certhidae
Carthia familiaris americana Bonaparte Brown Creeper—W

Troglodytidae
Cistocephalus stellatus (Naumann) Short-billed Marsh Wren—W
Thryothorus ludovicianus (Latham) Carolina Wren—P
Troglodytes aedon baldwini Oberholser Ohio House Wren—W

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Mimidae

* Dumetella carotinensis (Linnaeus) .................. Catbird—W
  * Mimus polyglottos polyglottos (Linnaeus)  ... Eastern Mockingbird—P

Turdidae

* Hylocichla fuscescens fuscescens (Stephens) ... Veery—M
  * Hylocichla guttata taxon Bangs & Penard  ... E. Hermit Thrush—W
  * Hylocichla mustelina (Gmelin) ................ Wood Thrush—M
  * Hylocichla ustulata swainsoni (Tschudi) ... Olive-backed Thrush—M
  * Sialia sialis sialis (Linnaeus)  ............. Eastern Bluebird—P
  * Turdus migratorius migratorius Linnaeus  ... Eastern Robin—W

Sylviidae

* Corthylio calendula calendula (Linnaeus) E. Ruby-crowned Kinglet—W
  * Polioptila caerulea caerulea (Linnaeus) ... Blue-gray Gnatcatcher—S
  * Regulus satrapa satrapa Lichtenstein E. Golden-crowned Kinglet—W

Motacillidae

* Anthus spinola rubescens (Tunstall) ............ American Pipit—W

Bombycillidae

* Bombycilla cedrorum Vieillot ................... Cedar Waxwing—W

Laniidae

* Lanius ludovicianus ludovicianus (Linnaeus) . Loggerhead Shrike—P

Vireonidae

1 Vireo flavifrons (Vieillot) ..................... Yellow-throated Vireo—S
  * Vireo griseus griseus (Boddaert) ........... White-eyed Vireo—S
  * Vireo olivaceus (Linnaeus) .................. Red-eyed Vireo—S

Compsothlypidae

* Compsothlypis americana (Linnaeus) ............. Parula Warbler—M
  * Dendroica aestival (Gmelin) .................. Yellow Warbler—M
  * Dendroica castanea (Wilson) .................. Bay-breasted Warbler—M
  * Dendroica coronata (Linnaeus) ............... Myrtle Warbler—W
  * Dendroica discolor discolor (Vieillot) ... Northern Prairie Warbler—M
  * Dendroica magnolia (Wilson) .................. Magnolia Warbler—M
  * Dendroica palmarum hypochrysea  Ridgway Yel. Palm Warbler—W
  * Dendroica pinus pinus (Wilson) ............. Northern Pine Warbler—P
  * Dendroica striata (Forster) .................. Black-poll Warbler—M
  * Dendroica virens virens (Gmelin) Black-throated Green Warbler—M
  * Geothlypis trichas (Linnaeus) ............... Yellow-throat—P
  * Mniotilta varia (Linnaeus) ................... Black-and-white Warbler—M
  * Protonotaria citrea (Boddart) ............... Prothonotary Warbler—M
  * Seiurus auricapillus (Linnaeus) ............. Ovenbird—M
  * Seiurus noveboracensis noveboracensis (Gmelin) N. Water-thrush—M
  * Setophaga ruticilla tricolora (Linnaeus) .... American Redstart—M

Icteridae

* Agelaius phoeniceus littoralis Howell and Van Rossem ............... Gulf Red-wing—P
  * Cassidix mexicanus major (Vieillot) ........ Boat-tailed Grackle—P
  * Dolichonyx oryzivorus (Linnaeus) ................ Bobolink—M
Fringillidae

Ammospiza martima howelli (Griscom, Nichols) How ell's Sparrow—P

Junco hyemalis hyemalis (Linnaeus) ......... Slate-colored Junco—W

Melospiza georgiana (Latham) ............... Swamp Sparrow—W

Melospiza melodia (Wilson) .................. Song Sparrow—W

1 Passerina cyanea (Linnaeus) ............... Indigo Bunting—M

Spizella pusilla pusilla (Wilson) ........... Eastern Field Sparrow—W

P — Permanent resident.
S — Summer resident.
V — Summer visitant.
W — Winter resident
M — Migrant.

1 — Additions to Burleigh and Pessin List of 1941 by Richmond (this paper).
2 — Additions to Burleigh and Pessin List of 1941 by John R. Walther (unpublished).

Class Mammalia — The Mammals

Dolphins and Porpoises

Tursiops truncatus (Montague) ......... Atlantic Bottle-nosed Dolphin

Hares and Rabbits

Sylvilagus aquaticus littoralis Nelson .......... Coast Swamp Rabbit
Sylvilagus floridanus mallurus (Thomas) ........ Eastern Cottontail

Rats

Mus norvegicus norvegicus (Erxleben) Norway, Common, Brown Rat

Procyonidae — Raccoons

Procyon lotor varius Nelson & Goldman ........ Raccoon

FLORA

Pinaceae

Pinus Elliottii Engelm. ...................... Slash Pine, Swamp Pine

1 Pinus clausa (Engelm.) Vasey ......... Spruce-Pine, Sand-Pine

Typhaceae

Typha angustifolia L. ...................... Narrow-leaved Cattail

Potomogetoneae

Ruppia maritima L. ........................ Ditch-grass

Alismataceae

Alisma subcordatum Raf. ...................... Waterplantain
Sagittaria mohrii Sm. J. G. .............. Arrowhead

Hydrocharitaceae

Thalassia testudinum Koenig+Sims .......... Turtle-grass
Halophila engelmannii Ascher .............. Tape-grass
Gramineae

Andropogon glomeratus (Walt.) B. S. P. ................. Broom-grass

Aristida longespica Poir. ........................ Three-awn Grass

Cenchrus incertus M. A. Curtis ........................ Southern Sandbur, Burr-grass

Chloris petraea Swartz ................................ Finger-grass

Digitaria serotina (Walt.) Michx. ..................... Walter’s Echinochloa

Echinochloa Walteri (Pursh) Nash ...................... Walter’s Echinochloa

Eragrostis Elliottii S. Wats. .......................... Love-grass

Panicum amarum Ell. ................................. Barnyard-grass

Panicum crus-galli L. .................................. Panic-grass

Panicum nitidum Lam. ................................. Panic-grass

Panicum oligosanthes Schultes ........................ Panic-grass

Panicum repens L. ...................................... Panic-grass

Panicum tenerum Beyr. .................................. Panic-grass

Paspalum floridanum Michx. .......................... Florida Paspalum

Paspalum membreceum Walt. .......................... Walter’s Paspalum

Paspalum setaceum longependunculatum (LeConte) .... Long-peduncled Paspalum

Paspalum vaginatum Swartz ........................... Salt Joint-grass

Setaria glauca (L.) Beauv. .......................... Glaucous Foxtail

Setaria magna Griseb. .................................. Giant Foxtail

Spartina alterniflora Loisel. ......................... Saltmarsh Cord Grass

Spartina patens monogyna (M. A. Curtis) Fern. .... White-rush

Sporobolus vaginiflorus (Torr.) Wood ................ Drop-seed, Poverty Grass

Sporobolus virginicus (L.) Kunth ...................... Virginia Rush-grass

Uniola paniculata L. .................................... Sea Oats

Cyperaceae (Sedges)

Bufbostylis ciliatifolia (Ell.) C. Mohr. ................. Ciliate-leaved Sedge

Cyperus Haspan L. ..................................... Haspan Sedge, Sheathed Cyperus

Cyperus Leontei Torr. .................................. Golden Sedge

Dichromena colorata (L.) Hitchc. ...................... White-tuft, Star-rush

Eleocharis albida Torr. .................................. Spike-rush

Eleocharis cellulosa Torr. ................................ Cellular Spikerush

Fimbristylis autumnalis (L.) Roem.+Schult. ........ Autumnal Sedge

Fimbristylis castanea Michx. Vahl .................. Chestnut-colored Sedge

Fimbristylis Harperi Britton ........................ Harpers’ Sedge

Mariscus jamaicensis (Crantz) Britt. .................. Saw-Grass

Pilocarya corymbifera (C. Wright) Britt. .......... Baldrush

Rhynchospora cymosa (Willd.) Ell. .................... Beakrush

Rhynchospora intermediata C. Wright ................ Beakrush

Rhynchospora microcarpa Baldw. ...................... Beakrush

Palmaceae (Arecaceae)

Sabal glabra (Mill.) Sarg. .......................... Dwarf Palmetto

Serenia repens (Bartr.) Small ........................ Saw-palmetto

Xyridaceae

Xyris caroliniana Walt. .............................. Carolinian Yellow-eyed Grass

Xyris elata Chapm. .................................... Yellow-eyed Grass

Xyris Elliottii Chapm. ................................ Elliott’s Yellow-eyed Grass

Xyris torta J. E. Sm. .................................. Twisted Yellow-eyed Grass
Commelinaceae
Commelina angustifolia Michx. ........ Narrow-leaved Dayflower
Commelina erecta angustifolia (Michx.) Fern .......... Narrow-leaved Dayflower

Juncaceae
Juncus robustus (Engelm.) Cov. ......................... Common Reed
Juncus roemerianus Schaele .......................... Black Rush
Juncus scorpioides Lam. ............................... Scirpoid Rush

Liliaceae
Smilax auriculata Walt. ......................... Catbrier, Wild Bamboo
Smilax bona-nox L. ....................... China brier

Iridaceae
Sisyrinchium sp. .................................. Blue-eyed Grass

Orchidaceae
Spiranthes sp. .................................. Ladies'-Tresses

Myricaceae
Myrica cerifera L. .............................. Wax-myrtle, Candleberry

Fagaceae
Quercus virginiana geminata Sarg. .............. Live Oak

Polygonaceae
Delopyrum gracile (Nutt.) ........................ Small Jointweed
Polygonella gracilis Meisn. .................. Slender Jointweed
Polygonum punctatum Ell. ................. Water-smartweed

Chenopodiaceae
Atriplex arenaria Nutt. ......................... Seabeach Orach
Salsola kali L. ................................. Goosefoot Saltwort

Amaranthaceae
Froelichia floridana (Nutt.) Moq. ................. Cottonweed

Batidaceae
Batis maritima L. ............................... Saltwort, Beachwort

Caryophyllaceae
Odontonychia carymbosa Small ................ Whitlow Wort
Stipulicida setacea Michx. .................. Chickweed

Ceratophyllaceae
Ceratophyllum demersum L. .................. Hornwort

Nymphaeaceae
Cabomba caroliniana Gray .................. Cabomba
Nymphaea tuberosa Paine .................. Water Lily

Magnoliaceae
Magnolia grandiflora L. .................. Southern Magnolia

Capparidaceae
Aldenella tenuifolia (T. & G.) Greene .......... Caper

Cruciferae
Cakile edentula (Bidel.) Hook. .................. Cakile
<table>
<thead>
<tr>
<th>Family</th>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Droseraceae</td>
<td>Drosera capillaris Poir.</td>
<td>Pink-sundew</td>
</tr>
<tr>
<td>Rosaceae</td>
<td>Rosa sp.</td>
<td>Wild Rose</td>
</tr>
<tr>
<td></td>
<td>Rubus trivialis Michx.</td>
<td>Southern Dewberry</td>
</tr>
<tr>
<td>Leguminosae</td>
<td>Chamaecrista littoralis Pollard</td>
<td>Sensitive Pea</td>
</tr>
<tr>
<td></td>
<td>Crotalaria Purshii D. C.</td>
<td>Pursh's Rattlebox</td>
</tr>
<tr>
<td></td>
<td>Crotalaria sagittalis L.</td>
<td>Arrowhead Rattlebox</td>
</tr>
<tr>
<td></td>
<td>Desmodium tenuifolium (T. &amp; G.) Ktze.</td>
<td>Tick-trefoil</td>
</tr>
<tr>
<td></td>
<td>Indigofera caroliniana Mill.</td>
<td>Carolina Indigo</td>
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<tr>
<td></td>
<td>Sesban emerus (Aubl.) Britton &amp; Wilson</td>
<td>Sesban</td>
</tr>
<tr>
<td>Meliaceae</td>
<td>Melia azedarach L.</td>
<td>China-berry, China-tree</td>
</tr>
<tr>
<td>Euphorbiaceae</td>
<td>Croton punctatus Jacq.</td>
<td>Silver-leaf Croton, Beach Tea</td>
</tr>
<tr>
<td>Empetraceae</td>
<td>Ceratiola ericoides Michx.</td>
<td>Rosemary, Heather-like Ceratiola</td>
</tr>
<tr>
<td>Anacardiaceae</td>
<td>Rhus copallina L.</td>
<td>Dwarf Sumac</td>
</tr>
<tr>
<td></td>
<td>Toxicodendron Toxicodendron (L.) Britton</td>
<td>Poison Ivy</td>
</tr>
<tr>
<td>Aquifoliaceae</td>
<td>Ilex vomitoria Ait.</td>
<td>Yaupon</td>
</tr>
<tr>
<td>Malvaceae</td>
<td>Hibiscus moscheutos L.</td>
<td>Swamp Marsh-mallow</td>
</tr>
<tr>
<td>Guttiferae</td>
<td>Sarothra gentianoides L.</td>
<td>Pineweed, Orange-grass, St.-Johns-wort</td>
</tr>
<tr>
<td>Cistaceae</td>
<td>Lechea minor L.</td>
<td>Pinweed, Thyme-leaved Lechea</td>
</tr>
<tr>
<td></td>
<td>Lechea Torreyi Leggett</td>
<td>Torrey's Pinweed</td>
</tr>
<tr>
<td>Violaceae</td>
<td>Viola primulæfolia L.</td>
<td>Primrose-leaved Violet</td>
</tr>
<tr>
<td>Cactaceae</td>
<td>Opuntia drummondii Graham</td>
<td>Drummond's Prickly Pear</td>
</tr>
<tr>
<td></td>
<td>Opuntia humifusa Raf.</td>
<td>Rafinewque's Prickly Pear</td>
</tr>
<tr>
<td>Elaeagnaceae</td>
<td>Elaeagnus multiflorus Thunb.</td>
<td>Japanese Cherry</td>
</tr>
<tr>
<td>Lythraceae</td>
<td>Lythrum lineare L.</td>
<td>Linear-leaved Loosestrife</td>
</tr>
<tr>
<td>Melastomataceae</td>
<td>Rhexia cubensis Griseb.</td>
<td>Meadowbeauty</td>
</tr>
<tr>
<td></td>
<td>Rhexia mariana L.</td>
<td>Maryland Meadowbeauty</td>
</tr>
<tr>
<td>Onagraceae</td>
<td>Ludwigia maritima Harper</td>
<td>Evening Primrose</td>
</tr>
</tbody>
</table>
Haloragidaceae
Myriophyllum proserpinacoides Gill ................ Parrott's Feather

Umbelliferae
Hydrocotyle Bonariensis Lam. ......................... Pennywort

Ericaceae
Vaccinium sp. ........................................... Blueberry

Primulaceae
Anagallis arvensis L. ................................. Common Pimpernel

Loganiaceae
Polypremen procumbens L. ......................... Procumbent Polypremen

Gentianaceae
Sabatia stellaria Pursh ......................... Sea-pink, Marsh-pink
Sabatia stellaris Pursh forma albilora Britt .... White Flowered Marsh-pink

Asclepiadaceae
Asclepias humistrata Walt. ...................... Walter's Milkweed
Metastelma palustris (Vail) ...................... Vine Milkweed

Convolulaceae
Cuscuta sp. ........................................... Dodder, Love Vine
Ipomoea Pes-Caprae (L.) Sweet ................ Railroad Vine
Ipomoea stolonifera (Cyril.) Poir. ........ Seaside Morning-glory

Verbenaceae
Lippia nodiflora Michx. . Capeweed, Spatulate-leaved Frog Fruit

Solanaceae
Physalis angustifolia Nutt. ........ Narrow-leaf Seaside Groundcherry

Scrophulariaceae
Bacopa Monnieri (L.) Pennell ................... Monnier's Waterhyssop
Sophronanthe (Gratiola) hispida Benth. ... Rough Hedgehyssop

Bignoniaceae
Bignonia radicans L. ................................. Trumpetcreeper

Rubiaceae
Cephalanthus occidentalis L. ........ Buttonbush, Button Willow
Diodia teres Walt. ............................... Buttonweed, Purple Button Flower
Oldenlandia fasciculata (Bertol.) Small .......... Oldenlandia

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Compositae

Actinospermum angustifolium (Pursh) T. & G. Thistle
Ambrosia artemisiifolia L. Hogweed, Ragweed
Baccharis halimifolia L. Groundsel Tree
Chondrophora nudata (Michx.) Britton Rayless Goldenrod
Chrysoma pauciflosculosa (Michx.) Greene

Few-flowered Goldenrod

Chrysopsis scabrella T & G. Beach Golden Aster
Eclipta alba (L.) Hassk. Yerba-de-Tago, White Flowered Eclipta

Eupatorium recurvans Small Recurring Eupatorium
Heterotheca subaxillaris (Lam.) Britt & Rusby Camphorweed
Iva frutescens L. Shrubby Marsh-elder
Iva imbricata Walt. Seaside Marsh-elder

(Received by Schuster, R. M., 1951)

Krigia virginica (L.) Willd. Dwarf-Dandelion
Mikania scandens (L.) Climbing Hempweed

Pluchea camphorata (L.) DC. Saltmarsh Fleabane
Pluchea foetida (L.) DC. Viscid Pluchea

Solidago sempervirens mexicana (L.) Fern. Seaside Goldenrod

1 Plants listed by Pessin and Burleigh (1941).
2 Plants collected by Connell (1951-60).
3 Plants listed by Lowe (1921).

Unnumbered species collected by Richmond (1944-1961), and deposited in the Bailey Hortorium at Cornell University, Ithaca, N. Y.

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CARTE de la COSTE
DU NOUVEAU BIL oxY.

Fig. 1. 1 A. Carte de la Côte du Nouveau Biloxi avec les îles des Enfants pour faire voir la situation de la Rade de l'Île aux Vaisseaux et celle de l'Île-de
de la Chalantier. A. Nouveau Biloxi à présent Fort Louis; B. Vieux Biloxi abandonné; C. Baye du Vieux Biloxi; D. Briqueteries; E. Rendezvous habitations

des Négres de la Compagnie; F. Rade de l'Île aux Vaisseaux; Échelle de
7500 Toises, ou 3 Lieues Communes—1 inch about 73/4 miles—Map Div. March
29, 1927 (Library of Congress); J. aux Oiseaux.
1-B. Portion of Jean Baptiste Bourguignon d'Anville's "Carte de la Louisiane dressée in Mai 1732, publiée en 1752." (Original in the Library of Congress).
Fig. 2. Horn Island map in detail (1944) with an insert showing the relationship of the island to the mainland and to the other barrier islands of the Sound. The insert is a portion of a strategic map of the War Department, Corps of Engineers, U. S. Army (Mobile Sheet); Army Map Service, Washington, D. C.; No. 100, 393, 1940 (1st Edition - AMS 1), Works Projects Administration Project. Main map adapted by Richmond from a toposographic map, Edition 1942, Surveyed by J. A. McKeen in 1941. United States Dept. of the Interior, Geological Survey, Miss. (Jackson Co.), Horn Island Quadrangle (15 minute series). The numbers refer to a section or one square mile (640 acres). The section numbers referred to in the descriptions of the photographs designate the numbers used in Fig. 2.
Fig. 3. Horn Island map showing the "Horn Island National Wildlife Refuge" and private property areas. Private property shown in black and the Refuge in white. However, ponds within the black areas are white and are owned privately. (Courtesy of John R. Walther).
Fig. 4. Sound shoreline near the "Horseshoe" from a trawler (Hermes).

Fig. 5. Treeline on the Sound side. Close-up of a portion of Fig. 4.

Fig. 6. Gulf shore west along bathing beach.
Fig. 7. Gulf shore east along bathing beach.

Fig. 8. Gulf shore looking west from bathing beach showing some tall sea oats.

Fig. 9. Gulf side looking northwest from bathing beach showing dunes with sea oats in rear to the left.
Fig. 10. Young slash pine (Pinus Elliottii Engelm.) just north of bathing beach.

Fig. 12. A portion of the north side of Lagoon C showing a stand of Juncus roemerianus Scheele and broomgrass. Oysters can be seen in the center of this photograph.

Fig. 20. Typical swamp in the center of the island filled with black rushes, broomgrass, and cattails.
Fig. 11. Rosemary (Ceratiola ericoides Michx.) just north of bathing beach.

Fig. 13. The narrow-leaved cattail (Typha angustifolia L.) borders the southern side of Lagoon C just to the north of the pine grove.

Fig. 14. Lagoon A looking to the north to the Sound.
Fig. 15. North of the bathing beach where several species of shore birds nest.

Fig. 16. Lagoon D bordered with black rushes.

Fig. 17. Marshy ponds M and S looking southeast from the western part of the island. Black rushes abound.
Fig. 18. Swampy area amongst pine timber in the center of the island.

Fig. 19. Swampy hole near the center of the island.

Fig. 21. Clump of live oaks (Quercus virginiana geminata Sargent) with scattered slash pines. Palmettos in the foreground. About two miles from the east end close to the Sound.
Fig. 22. Same area as Fig. 21 but close-up photograph.

Fig. 23. Pine grove looking east from the administration area.

Fig. 24. Similar view of Fig. 23 after a heavy rain.
Fig. 25. Swampy land near Section 26.

Fig. 26. Rosemary shrubs (center of photograph) with scattered clumps of small groundsel plants (*Baccharis halimifolia* L.) throughout. Section 25 area.

Fig. 27. Close-up of the cottonmouth (*Agkistrodon piscivorus* (Troost)). Marsh near Section 24.